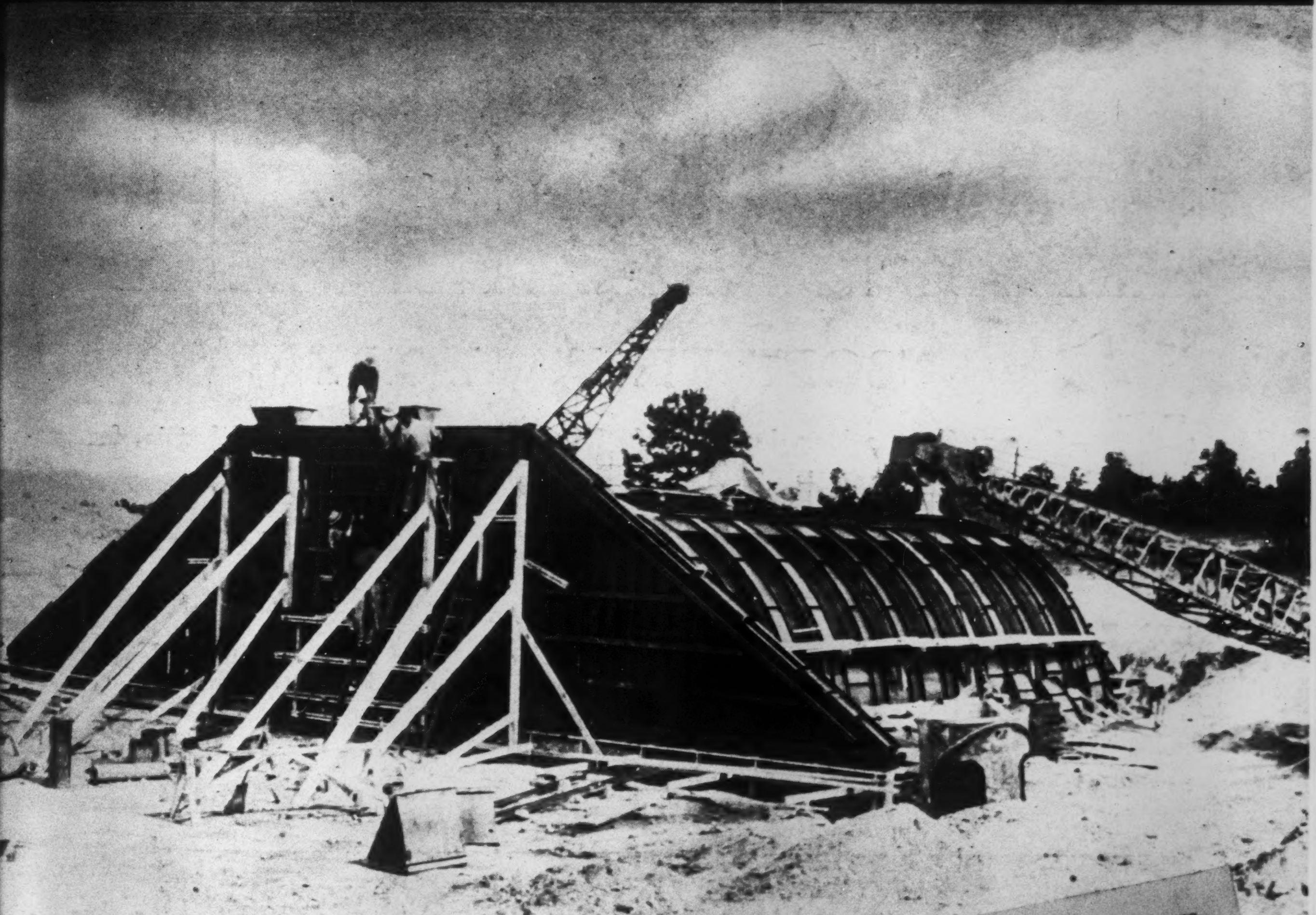
ENGINEERING NEWS-RECORD



Tunnel liner plates make arch form for munitions storage igloos at Anniston Ordnance Depot.

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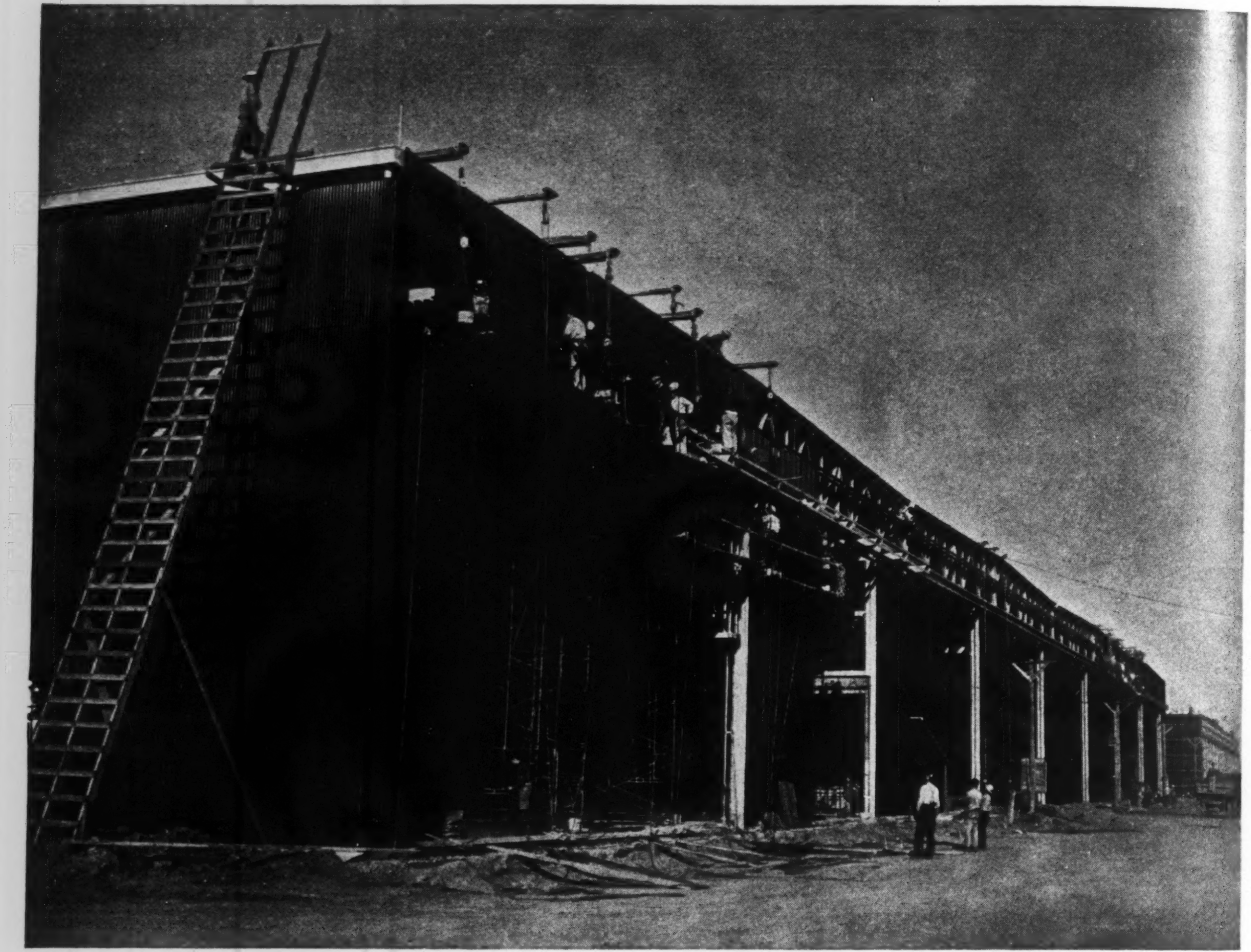
"The supply of these tools will not fail
. . . it will increase."—*President Roosevelt*



BOMBER FACTORY

Job—factory for the Douglas Aircraft Company, Long Beach, California, for production of long range attack bombers.

Size—more than 11,000 tons of structural steel required. Steel produced, rolled, fabricated and erected by Bethlehem.

Time—first steel delivered at site Jan. 29, 1941. Steel framework erected complete June 3, 1941.

Bethlehem Steel Company is setting new high records for the production of steel and finished steel products for buildings, equipment and other defense matériel.

BETHLEHEM STEEL COMPANY

BETHLEHEM STEEL

The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • SEPTEMBER 18, 1941

QM construction transfer will alter contract letting

Placing army construction under Corps of Engineers will result in decentralization of contract negotiations and award of the contracts

If the transfer of Quartermaster Corps construction to the Corps of Engineers is approved by Congress as expected, contractors will find getting defense jobs a much simpler procedure and one involving few trips to Washington. The U. S. Engineer Department handles the award of even its largest jobs in the continental U. S. through the fifty-odd district offices, leaving very full discretion to the district engineers.

Till now, the best prescription for getting a cantonment or munition plant job has been to haunt the QM offices in Washington. In future a contractor's or engineer's best bet is likely to be to keep in touch with the district engineers in his territory and those having jurisdiction over jobs he is interested in.

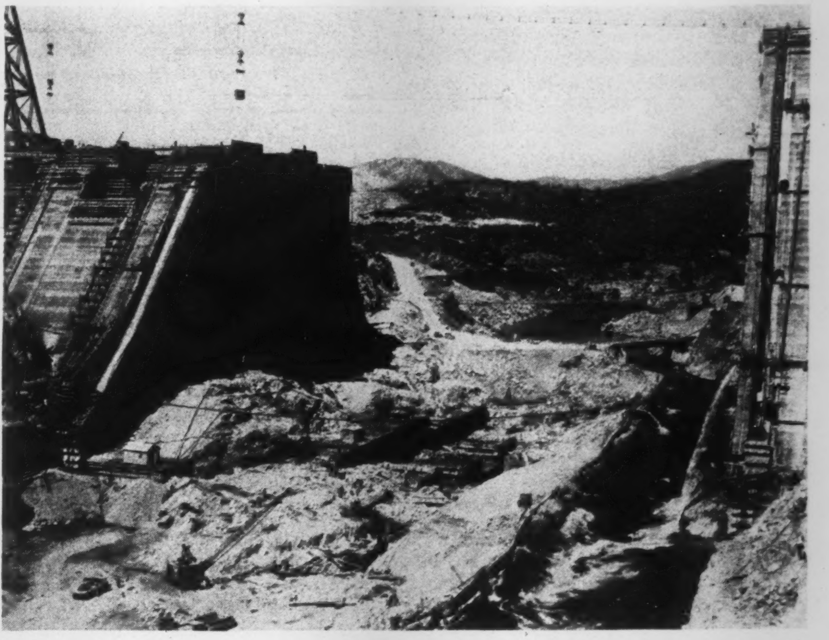
About half the Engineer's $1,500,000,000 in contracts in force have been awarded by open competitive bidding. These jobs were handled entirely by the district engineer, who advertises, receives bids, and makes the award. However, this high percentage probably cannot be maintained if the U. S. Engineers get the troublesome work the QM has had to handle.

Competitive bidding is used on all jobs on which plans and specifications are complete when the work is to start. If engineering is not complete when the work starts, negotiated contracts are used. Procedure here is for the district engineer to draw up a list of five contractors, indicating his preference, and to send the list to Washington. Where possible, he is supposed to list firms in the same state as the job. Contractors wanting to be considered for negotiated contracts may file their qualifications with the district engineer. In Washington the list is reviewed by the Construction Advisory Board and the OPM construction branch (if over $500,000). If the list is approved—as it is more than 95 percent of the time—it is returned to the district engineer for negotiation of a contract.

The corps prefers at this point to invite the five contractors to submit sealed lump sum bids for the job and to make the award to the lowest bidder. Where plans are so indefinite that contractors are unwilling to hazard a lump sum bid, the fee contract is employed. The district engineer negotiates this contract, being guided by the maximum fees in the confidential fee table issued regularly by the War Department.

U. S. Engineer Department practice is to have its jobs designed in the district offices. Much of the emergency expansion, particularly as regards large jobs, has been handled by retaining civilian firms rather than expanding the government staff. Practice in awarding architect-engineer contracts is substantially the same as that used for negotiated fee construction jobs.

Obviously the high degree of decentralization used by the U. S. Engineers is possible because they have a field staff with long experience in heavy construction. Question has been raised as to whether more than doubling the volume of work will scatter the staff so much as to make this impossible. Engineer Corps officials, however, are confident that this will not be the case.



Concrete work started in river section at Shasta

Concrete operations are here shown starting in the river section at Shasta Dam while the low stream-flow of the Sacramento River is carried in a by-pass channel at the right. By the time the winter runoff starts, the low level concrete is to be in place to provide a channel through which floods can pass without damage. Note in the upper left background the corner of the high steel tower from which radiate the seven cableways whose 8-cu. yd. buckets, one of which is seen in silhouette, will place 6,000,000 yd. of concrete.

Sanitation compact signed by Connecticut

The State of Connecticut formally became a member of the Interstate Sanitation Commission on Sept. 17 when signatures were affixed to the compact binding New York, New Jersey and Connecticut in a joint effort to halt the pollution of the waterways in the New York Metropolitan district. Both New York and New Jersey signed the compact five years ago, and the commission has been operating since that time during which 27 municipal sewage disposal plants have been completed or put under construction. One of the commission's important activities has been the classification of waters in the district according to predominant use, and the establishment of treatment standards for waters entering these waters.

Connecticut representatives on the Interstate Sanitation Commission, appointed by the governor, Robert A. Hurley, are: Daniel F. B. Hickey, an attorney; Dr. Stanley H. Osborn, state commissioner of health; Francis A. Pallotti, state attorney-general; Andrew Radel, representing the shellfish industry; and Sanford H. Wadham, state water control commission.

Carmody appoints eight new PWR directors

FWA's administrator John M. Carmody has announced the appointment of eight additional state directors of the Public Works Reserve, which is to build up a backlog of public works projects that might be undertaken after the reduction of defense activities.

The appointments increase to 40 the number of state directors named so far to be responsible for cooperative efforts in 46 states and the District of Columbia, between local, county, state and federal officials in establishing the reserve of projects. They are as follows:

State	Director	Headquarters
Ala.	George G. Scott	Montgomery
Conn., R. I.	James A. McElroy	Hartford
Del., Md., D. C.	Everett L. Gonyou	Baltimore
Ill.	Ross Caldwell	Chicago
Ky.	Robert H. Coleman	Louisville
Me., N. H., Vt.	James Cash	Manchester
Mass.	Wm. W. Drummey	Boston
N. Y. State	Alfred E. Roche	Albany

A recent three-day meeting in New York City concluded a series of regional conferences to lay the groundwork for the PWR program. Regional conferences were held earlier in Atlanta, Chicago and Salt Lake City. State directors now are to begin conferences with mayors and heads of city departments in their various areas.

(For complete list of directors previously appointed, see ENR, Aug. 21, 1941, Vol. p. 260).

First unit of 41-acre Boeing plant at Wichita, Kansas

With the 41-acre bomber plant of the Boeing Aircraft Co. completed at Seattle, Wash., and in production after a record 12-month expansion program, the Austin Co. has started construction of a 1,320,600-sq.ft. addition to Boeing's new bomber plant at Wichita, Kans.

The Seattle plant, with the exception of executive offices and engineering quarters, will be practically duplicated at Wichita. The first unit in the 41-acre proposed project at Wichita is illustrated above. The major difference between the two plants is the provision for two assembly bays with 300-ft. clear spans, in addition to one of 200 ft. already in use at the Wichita site. This compares with one 300-ft., one 200-ft. and two 125-ft. bays at Seattle. (See ENR—June 19, 1941 p. 927)

The twin plants especially designed for speedy production, will be used for the manufacture and assembly B-17E Flying Fortresses.

Navy draftsmen seek salary increases

Secretary of the Navy, Frank Knox, has received a proposal from the Federation of Architects, Engineers, Chemists and Technicians, a C.I.O. affiliate, through its international president, Lewis Alan Berne, that the salary of Navy Yard draftsmen be increased at least 25 per cent.

It is claimed that the Navy Yard draftsmen are not being paid the prevailing rate of pay, although this has been the pronounced policy of the Navy Department. Mr. Berne states that "The Federal Government has recently received a master agreement for the shipyards of the Atlantic seaboard, granting a blanket increase of 12½ per cent to marine draftsmen in private shipbuilding companies."

A 25 per cent increase to the Navy Yard draftsmen would about equalize the rates now paid in private marine offices to men who are engaged on government work, according to Mr. Berne.

Fifth generator installed at Bonneville Dam

Generator capacity of Bonneville Dam's powerhouse has been increased from 194,400 to 248,400 kw. as a result of installation of the fifth generator on Sept. 8. The installation was made under the supervision of the Corps of Engineers, who are in charge of construction and operation of the dam.

Bonneville's administrator Paul J. Raver, points out that the additional generator, together with the first huge 108,000-kw. unit scheduled to go into service at Grand Coulee Dam, in October, will put generating capacity safely above necessary contract deliveries, eliminating any need of drawing upon other power facilities for immediate needs. Bonneville's deliveries of power in September will approximate 239,700 kw., as against a combined Coulee-Bonneville capacity of 268,400 kw. The installation of a 108,000 kw. unit at Grand Coulee will boost the total kilowatt capacity of the Coulee-Bonneville combination to 356,400 kw.

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rmy engineers continue studies o provide air raid protection

ow in preparation are several reports dealing with bomb protec- ion needs as revealed by experimental tests by the Army and the ational Academy of Sciences.

he Corps of Engineers last week re-
ed its contract with the National
demy of Sciences to provide for con-
ed research into the underlying the-
of designing bomb resistant struc-
s. The contract, amounting to $75,-
provides that the academy carry
investigations and experiments and
e reports on passive protection
inst bombing attacks for both mili-
and civil personnel. The War De-
tment will provide sites, apparatus,
military supplies for the tests.

he contract with the academy dates
n last year, when the fortifications
ion of the Corps of Engineers was
tted funds to develop standards for
ctures to resist aerial bombardment.
as immediately found that no theo-
cal foundation for such work existed.
le was known about the forces in-
ed in bomb explosions, and equally
le was known about the capacity of
ctures to resist these forces.

ome empirical information was avail-
e, based on British experience, in the
Raid Protection handbooks. This
rmation was collected and incorpor-
d in a pamphlet, Protective Construc-
. issued last spring.

he Corps of Engineers, however,
nted to reduce the problem to a more
ntific basis, and it was felt that this was a job for physicists rather than engineers. Accordingly, the National Academy of Sciences was retained to undertake the theoretical work involved, and the academy organized a staff. In addition to administrative officers in Washington, the academy has six men at Princeton and three at M.I.T. devoting a major part of their time to this work, and it is constantly employing consultants on special problems.

The academy's principal concentration so far has been on the problem of penetration of bombs into steel, concrete, and the like. Technically this work comes under OPM's Office of Research and Development, through one of its subsidiaries, the National Defense Research Council. However, the subcommittee on protective construction of NDRC is simply the academy group under another name.

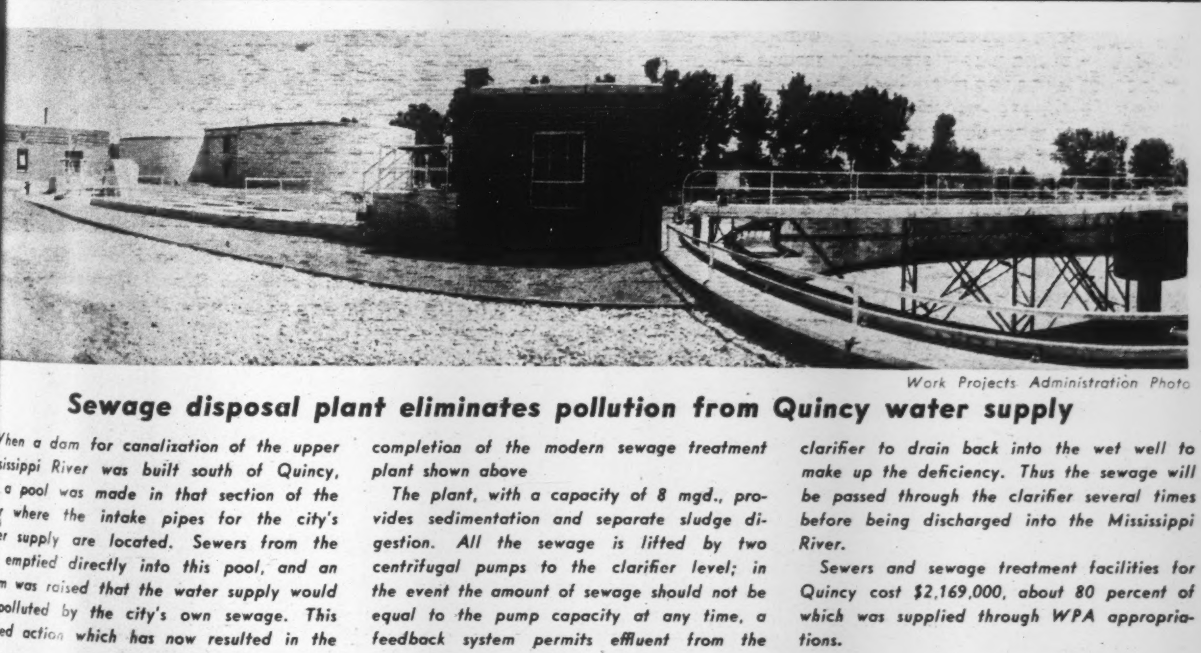
The work done by the fortification section itself is aimed in the main at developing construction methods based on the academy's studies and in putting them to practical test. It has, for instance, in cooperation with Navy's Bureau of Yards and Docks, built bomb shelters and then dropped bombs on them to see what happens. For this sort of work, the section spent $300,000 in the fiscal year ending last July and has a like amount to spend for this year.

Based on these experiments, the fortification section now has in preparation a half dozen or so reports dealing with various phases of the subject. These will be based much more on original studies and less on A.R.P. work than was the first one. Like that one, they will be released through Fiorello LaGuardia's Office of Civilian Defense. OCD's part in the protective construction field is in general the dissemination of information. It also turns over to the fortification section requests for information received from local agencies.

One more group is active in this field, the National Technological Civil Protection Committee. This organization, made up of representatives from the technical societies, was formed some months ago by the Secretary of War to deal with all technical problems of civil defense. A group from the American Society of Civil Engineers under Walter D. Binger, Commissioner of Borough Works, Borough of Manhattan, New York City, is particularly active on bomb-resistant structures.

Mr. Binger's group is not set up to do original research. Rather its function is to study, through local sub-committees, the best method of applying to individual local conditions the results obtained by the War Department.

A typical case might be that the academy would determine the loadings resulting from a 500-lb. bomb. The fortification section would use this to determine standards for bomb shelters. And a local sub-committee of the National Technological Committee might work out the number, type, and location of shelters required by a particular city.



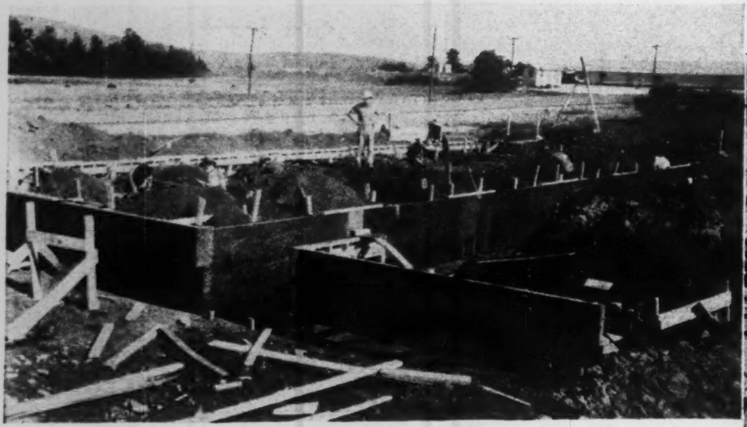
Work Projects Administration Photo

Sewage disposal plant eliminates pollution from Quincy water supply

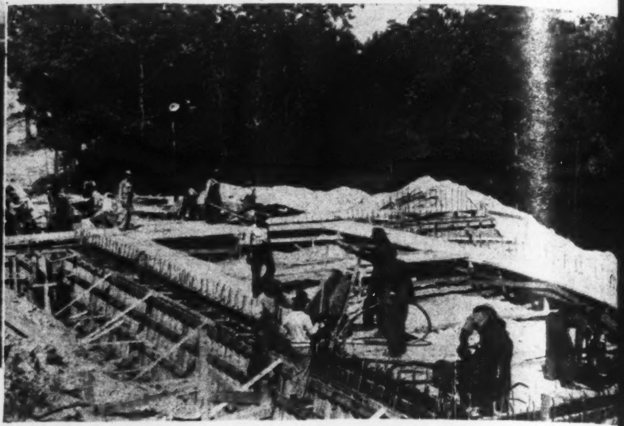
hen a dam for canalization of the upper
ssissippi River was built south of Quincy,
a pool was made in that section of the
r where the intake pipes for the city's
er supply are located. Sewers from the
emptied directly into this pool, and an
m was raised that the water supply would
polluted by the city's own sewage. This
ted action which has now resulted in the completion of the modern sewage treatment plant shown above

The plant, with a capacity of 8 mgd., provides sedimentation and separate sludge digestion. All the sewage is lifted by two centrifugal pumps to the clarifier level; in the event the amount of sewage should not be equal to the pump capacity at any time, a feedback system permits effluent from the clarifier to drain back into the wet well to make up the deficiency. Thus the sewage will be passed through the clarifier several times before being discharged into the Mississippi River.

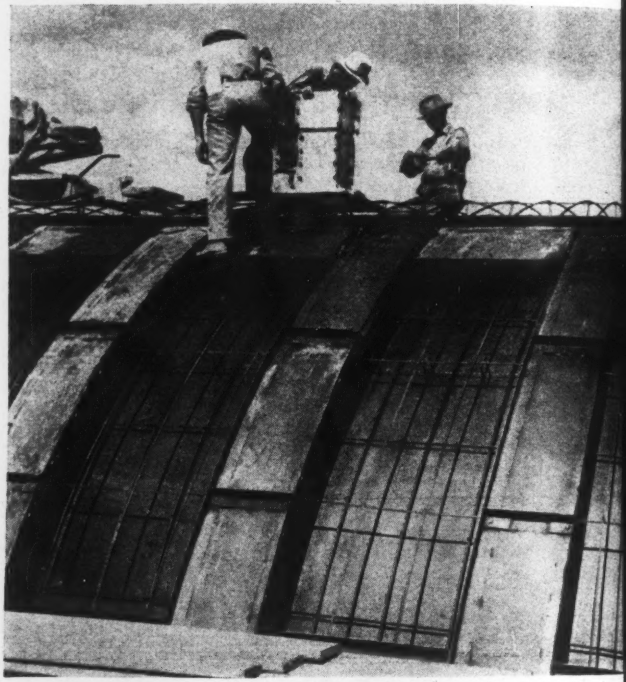
Sewers and sewage treatment facilities for Quincy cost $2,169,000, about 80 percent of which was supplied through WPA appropriations.



GENERAL EXCAVATION at each igloo site is done by carrying scrapers and small shovels. Trenches for arch tension ties are dug by hand.



LOW-SLUMP CONCRETE for foundations comes to individual igloo site in mix trucks and is distributed by barrows.



AS CONCRETE is placed, 3-ft. wide panels are set in place and held b fastening wedge bolts between 18-in. plates shown. Section through ar is shown below at right. Small form on top is for encasement of a lightni

Igloos for munitions storage

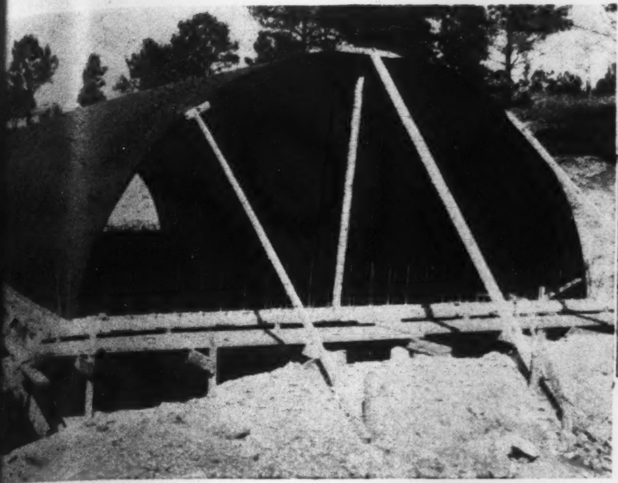
Just west of Anniston, Ala., the Ordnance Department of the U. S. Army is constructing 700 reinforced-concrete "igloos" for storage of live munitions. These structures are not a true igloo shape, being rather half a barrel arch supported on spread footings carried down to firm subsoil. The floor of each structure, 26 ft. 6 in. by 60 ft. 8 in., is placed separately from the exterior frame and rests directly on the ground. The igloo's rear wall is merely a "barrel head" while the front is a counterforted retaining wall. Access is through a vault type door in the front wall.

The concrete will be protected by multiple ply waterproofing and a minimum cover of two feet of earth over the top and rear, probably placed by draglines.

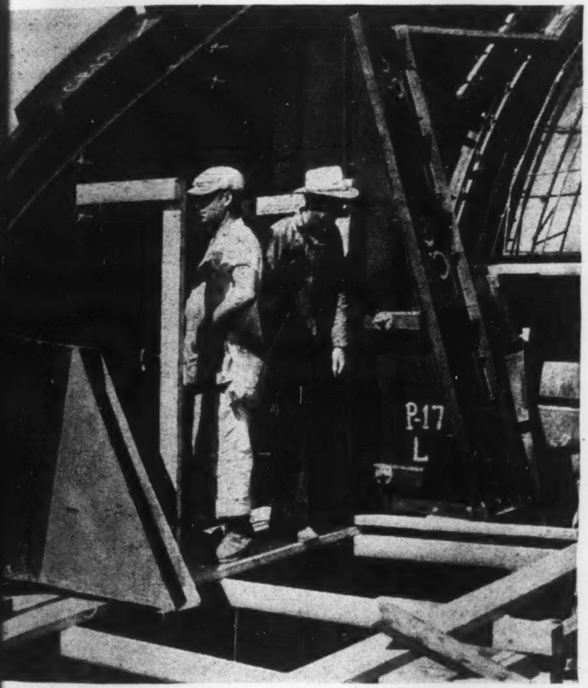
The structures are not designed to resist violent internal or external explosions but rather depend on wide separation of individual units for protection. The 700 igloos, located 450 ft. apart on roads on 450-ft. centers, are spread over about 14,000 acres of wooded and very sparsely settled country, which had few roads of any kind when construction started and none satisfactory for the present use. This resulted in one of Alabama's greatest road jobs, the construction of 110 miles of arterial, secondary and access roads. The igloos are placed just off the access roads, located as terrain permits but preferably with the door to the north. Total earth handling is expected to be 3,000,000 yd.

Munitions move in and out of the Ordnance Depot over a newly constructed spur from existing railroads. Materials will be trucked between a central terminal area and the igloos.

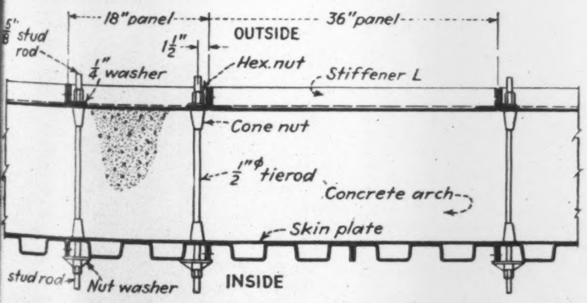
The construction is being done under a fee contract for the Quartermaster Corps under the direction of Lt. Col. Edmund Randall, constructing quartermaster. The engineering is handled by J. B. C & Co. and A. C. Polk of Mobile a mingham, for whom H. E. Myer charge of field operations. Contrac Dunn Construction Co. and John S son Co., of Birmingham and Mont with Jake Moose general manag American Rolling Mill Co. assiste design of the forms and fabricat for the contractors.



OOR is placed a pressed-metal form of tunnel liner plates with skin plate Forty-three sets of steel forms are provided.

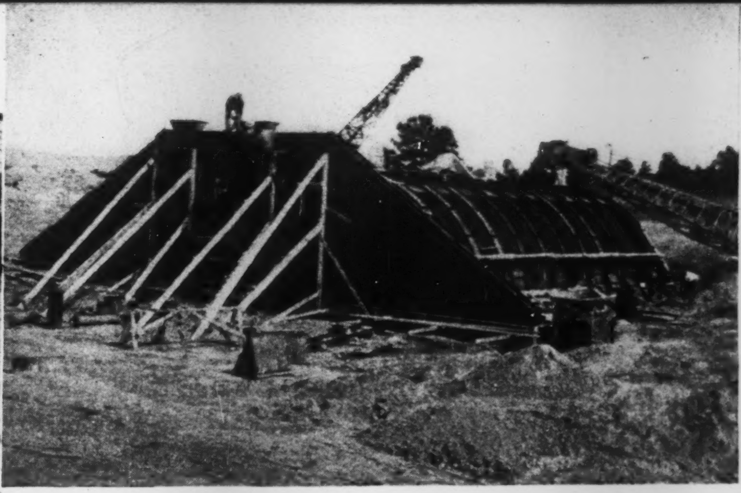


LL and counterfort forms go together quickly as every piece is marked acting ties are used.

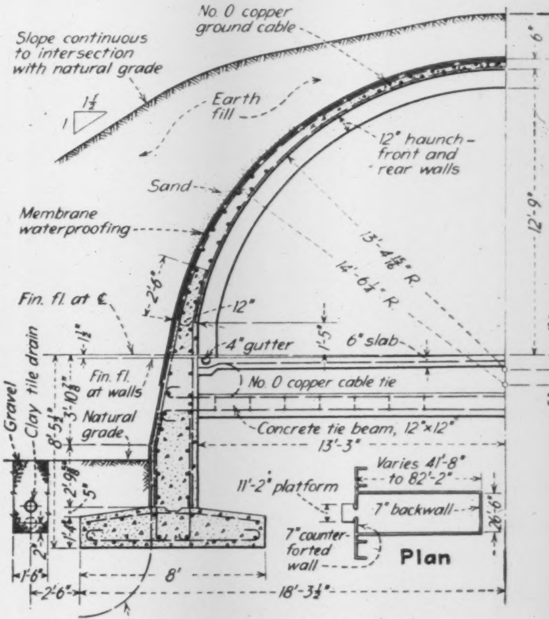


18" panel
36" panel
5/8" stud rod
1/4" washer
1 1/2"
OUTSIDE
Hex. nut
Stiffener L
Cone nut
1/2"φ tierod
Concrete arch
Skin plate
stud rod
Nut washer
INSIDE

OUTSIDE FORM and 36-in. section of the inside are designed for early removal leaving the 18-in. wide panels to support the arch.



ARCH is ready for concrete placing, which is done by cranes taking concrete from transit mixers.

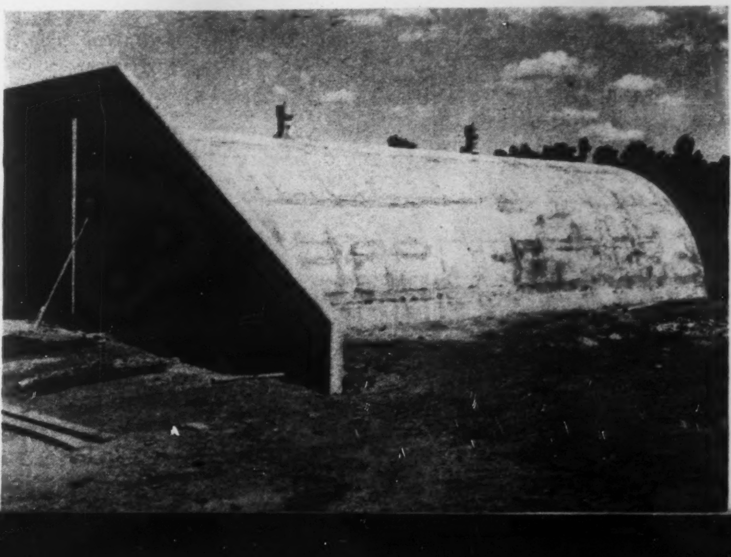


Slope continuous to intersection with natural grade
1 1/2
1
No. 0 copper ground cable
Earth fill
6"
2' earth
12" haunch-front and rear walls
Sand
12'-9"
Membrane waterproofing
13'-4 15/16" R
14'-6 1/4" R
2'-6"
Fin. fl. at ℄
12"
1 1/2"
4" gutter
1'-5"
6" slab
7 13/16"
7 5/16"
Gravel
Clay tile drain
8'-5 1/2"
3'-10 7/8"
Fin. fl. at walls
No. 0 copper cable tie
Natural grade
Concrete tie beam, 12"×12"
13'-3"
2'-9 5/8"
5"
1'-4"
2'
1'-6"
2'-6"
8'
18'-3 1/2"
Varies 41'-8" to 82'-2"
11'-2" platform
7" backwall
26'-6"
7" counter-forted wall
Plan
No. 0 copper ground cable

Half Cross-Section

TYPICAL igloo design in use for storage throughout nation.

COMPLETED IGLOO ready for waterproofing and covering with earth. A heavy steel door will close the front opening.



M. J. GREER (wearing jacket at left), assistant project engineer for the Bureau of Reclamation, and AL HUNTINGTON, assistant superintendent for Platt Rogers, Inc., pause at the fault that caused a lot of trouble in driving the west heading of the Continental Divide tunnel of the Colorado-Big Thompson project at Grand Lake, Colo.

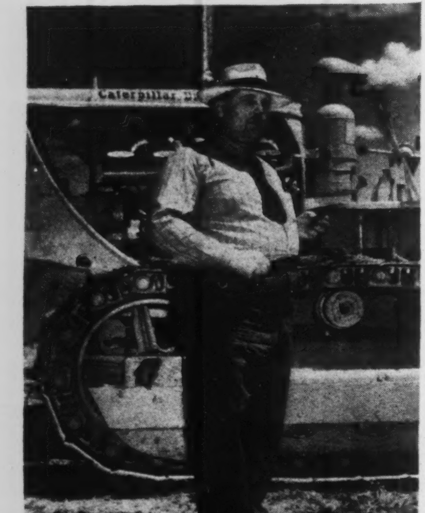
MEN AT WORK

Finishing up details for a 180,000-sq. ft. temporary of building in Washington, D. C. gets the attention of J. DAVIS (in dark suit above), general superintendent on project for the Public Buildings Administration, and E. FISTER, job foreman for McCloskey & Co., Philadelph general contractors for the $510,000 project.

F.W.A. Photo

Architects and engineers above watch demounting and reassembling of Allied Housing prefabricated dwelling at Indianhead, Md. Left to right they are: H. ARTHUR TUCKER, associate architect for Public Buildings Administration; GEORGE R. COBB and O. N. BRIGHT, PBA construction engineers.

CAPT. JAMES G. COLLINS (above), of the Quartermaste Corps and constructing quartermaster for the harbor de fenses of Portsmouth, catches up on office work. He is show at his desk in the construction office at Camp Langdon New Castle, N. H.



A tractor backs up H. E. BAILEY (left), city manager of Oklahoma City, Okla., as he pauses in an inspection of the huge Midwest Air Depot of the Air Corps under construction near his city.

When three grade separation structures were recently dedicated at Rock Springs, Wyo., Roy A. Klein (right), PRA senior highway engineer, was a speaker. Mr. Klein has been with PRA at Denver for the past 8 years.

Chicago schedules bids for water plant work

Bids for the completion of the huge South District water filtration plant being built by the City of Chicago at 79th St. on the lake will be advertised at intervals from now to the first of next year. Items such as painting, landscaping, tuning up of the plant, and yard improvements will be let under next year's schedule.

Definite dates for calling for bids on the various contracts have not yet been set but a preliminary schedule issued by W. W. DeBerard, city engineer, follows:

September: Traveling cranes, landscaping of park fill and filter plant approach; tunnel connections to the existing distribution tunnel system; October: Superstructures for pumping station, filter building and administration building, shore intake structure; November: flocculators and sludge scrapers; December: pumps and piping, structural steel for chemical building, miscellaneous iron, filter equipment, superstructure for chemical building, chemical equipment; January: electrical work, sludge disposal equipment.

The substructure of the plant is now complete and work is under way on erection of the superstructure.

• • •

Work on Newton Dam in Utah now underway

Construction work on the $700,000 Newton, near Logan, Utah, dam, first reclamation project to be approved under terms of the Case-Wheeler act, has been started. This dam is located in Clarkson Creek hollow, in which America's first irrigation dam was located in 1871.

The new reservoir formed by the dam will supplement the historic Newton irrigation district reservoir, which is still in use after 60 years. It will impound 5,200 acre ft. of water for irrigation.

• • •

More defense public works projects approved

Presidential approval has been secured for 24 more defense public works projects to provide facilities or services necessary to the health, welfare or safety of defense workers and Army and Navy personnel.

These new projects are distributed over eleven states and the Territory of Hawaii. The total estimated cost is $2,912,738. Together with those previously approved these additions bring the total of defense public works projects to 109. Total estimated cost is $27,920,057.

Schools and school additions make up the largest group of projects with 12 divided among California, Colorado, New Hampshire, New Mexico, Virginia and Washington. Recreation centers form the next largest group with 3 in South Carolina and 3 in Texas. Waterworks, sewerage systems, or projects for both, are located in Georgia and North Carolina.

Sponsors will bear part of the cost on 9 of the 24 projects. In each case the amount of sponsor's funds will be fixed by agreement between the local authorities and representatives of the Federal Works Administrator. The remaining 15 projects will either receive a full federal grant or be federally constructed.

• • •

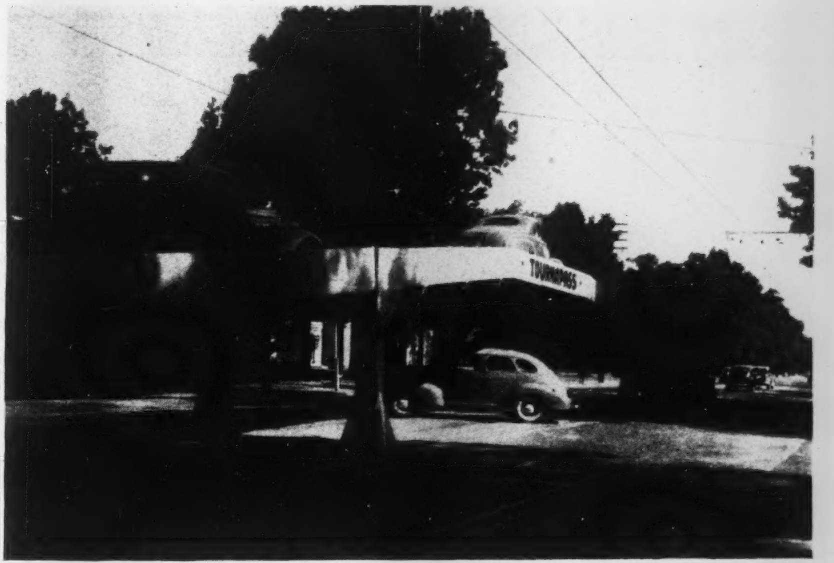


Photo by William Dunn Studios.

Demountable overpass tried in Atlanta traffic experiment

A new idea in overpass design as an aid in solving municipal traffic problems was demonstrated to the citizens of Atlanta, Ga., during an experimental period from Aug. 4-23. The demountable steel-frame structure, called a "Tournapass", was installed for the first time at a busy intersection on Atlanta's main thoroughfare to an important residential district.

The structure, as shown, is of welded box-beam design, using alloy steel, and weighs 30 tons. Girders, floor beams and floor plate are welded into a rigid one-piece unit. Each of the three spans is 60 ft. long, and the end spans are hinged for portability and to allow for different street grades. The single lane width can be doubled by using two parallel units. Demountabiilty and relative ease of transportation would allow the unit to be set up quickly at different locations for handling emergency traffic situations, or to meet special municipal problems.

During the demonstration about 55,000 vehicles used the overpass. On a Sunday, 4,685 cars went over the structure, compared to 1,581 vehicles which followed the level route, or about 74 per cent elected to use the overpass in spite of the fact that they had a two-lane level route on which the traffic light was green two-thirds of the time. The view shows the installation looking south on Peachtree St., with cars passing Wesley Ave. against the red light.

The Tournapass was developed and built by the LeTourneau Co. of Georgia.

Surety firm will complete Blue Mountain Dam tunnel

Completion of work on the Blue Mountain Dam diversion tunnel, located on the Petit Jean river in Yell County, Mo., has been taken over by the Hartford Accident & Indemnity Co., according to announcement by Lt. Col. T. F. Kern, district engineer, U. S. Engineers.

The insurance company is surety for John Kerns Construction Co. of Omaha, Nebr., contractors on the job, which was ordered to cease work after progress was found to be behind schedule on August 15. The construction company was paid for its work on the tunnel on a month-by-month basis, and 10 percent of each payment was held in reserve. The surety company will receive the balance of payment due on the contract and will receive the 10 percent held in reserve on completion.

The earth-filled embankment and spillway will be constructed on a separate contract by Myers, Myers & Goen, of Salem, Ind. The dam, one of four flood control projects under construction by the U. S. Engineers in the district, will be 115 ft. high and 2,700 ft. long. The 1,100-ft. diversion tunnel, which will divert the river's waters around the right abutment of the earth fill, is scheduled for completion early this fall.

MEN AND JOBS

Richard L. Powell, former assistant traffic engineer in Dallas, Tex., and a lieutenant in the U. S. Engineer reserve, has reported to the office of the constructing quartermaster, Fort Sam Houston, for active duty.

Major Roland C. Brown, former acting district engineer, Denison district, Texas, has been relieved from this assignment and detailed for duty at Alabama Polytechnic Institute at Auburn.

J. S. Barlow has recently been appointed assistant regional engineer, PWA, Fort Worth, Tex.

Dana L. Davis, former office manager of the Connecticut Department of Public Works, has been appointed assistant state defense administrator, with headquarters in Hartford.

W. E. Freeman of High Point, N. C., is the engineer in charge of a $450,000 water and sewer project at Jacksonville, N. C.

H. G. Spencer, senior engineer and designer in the Alabama state highway department's bridge division, has resigned to accept a position as consulting engineer on the Army Training Center project, at Ozark, Ala. He is a graduate of Alabama Polytechnic Institute, Auburn, and entered the service of the department as a rodman in 1926.

LeRoy Hargrove, of Helena, Mont., designing engineer for the Montana Water Conservation Board for several years, has resigned to enter the Army engineering corps. He will be stationed at Fort Peck.

Orlando G. Holway, consulting engineer of Hudson, Wisc., is the new director of public works of the City of Superior. His 20 years' experience in engineering work includes direction of a large drainage project in the Horicon marshes, service as city engineer in both Horicon and Chippewa Falls, Wis., supervision of a 600-man federal soil erosion work camp in that state, and work on a large drainage project in Minnesota.

J. V. Bennett, chief draftsman of the North Dakota Highway department since 1934, has resigned to accept a position as chief engineering draftsman in the quartermaster corps at Camp San Luis Obispo, Calif.

L. L. Ledbetter, city treasurer at Charlotte, N. C., was named city manager in August to suceed **James W. Armstrong.** Mr. Ledbetter has served the city since 1921—first as bookkeeper, then as city treasurer.

W. F. Blatherwick, Sioux Falls, S. D., architect, has returned to private practice after a tour of military duty at Fort Leonard Wood in Missouri. He holds a commission as lieutenant colonel and was attached to a construction unit.

J. D. Rice is now employed as a civil engineer with the International Petroleum Co. at Negritis, Peru. He is a graduate in civil engineering from McGill University.

J. Tannenbaum is now a production engineer with the W. R. Cuthbert & Co. at Montreal. He is a bachelor of engineering from McGill University.

Carl D. Pollock, consulting engineer, has opened an office for general engineering practice at Tacoma, Wash. Mr. Pollock was graduated from the University of Washington in 1911 and has been doing engineering work in Kentucky in recent years.

W. J. Murphy, of Rochester, Minn., has been appointed engineer of the Minnesota Aeronautic Commission, according to Stanley Hubbard, commission chairman. Mr. Murphy was engineer in charge of the construction of the Rochester airport. He also served on the Olmstead County highway department staff, and was previously engaged in engineering sales work.

A. T. Kinne has been transferred to the Nashville, Tenn., division of the Louisville & Nashville R. R. as division engineer. He was formerly assistant division engineer with the Birmingham division of the company. **A. C. Haynie,** formerly a supervisor in the engineering department at Anniston, Ala., has been promoted to Birmingham, succeeding Mr. Kinne.

William S. Massa is in charge of a flood control survey being made in the vicinity of Bryson, N. C., by the TVA division of maps and surveys. His headquarters are at Bryson.

E. B. Cape, formerly materials and test engineer for the Texas highway department at Austin, has been appointed district engineer for the Asphalt Institute in the territory comprising Texas, Oklahoma and Arkansas, with offices at Austin, Tex. **R. J. Hank,** superintendent of aid projects since 1930, has assumed the duties of engineer of materials and tests, succeeding Mr. Cape. **Harvey E. Deen,** supervising engineer, succeeds Mr. Hank in this capacity, and Mr. Deen's former position of supervising engineer will be assumed by **E. J. Amey,** while **R. L. Schmidt** is promoted to Mr. Amey's former position as assistant to the state highway engineer.

R. A. Riddle, of Charlotte, N. C., state engineer for the Standard Oil Co. of New Jersey, is supervising the construction of storage tanks, warehouses and an office building for his company at the Greensboro, N. C., terminal of the 1,234-mile petroleum pipeline being laid from Baton Rouge, La., to the eastern seaboard.

H. A. Gray is now a resident engineer with the Quebec Department of Roads located at Knowlton, Que. He is a civil engineer from the University of Manitoba.

J. D. Adams is now an inspector with the Dominion Bridge Co. at Montreal. He graduated in civil engineering from McGill University in 1939.

W. W. Mitchell has been reappointed as state highway director of Arkansas, a position he has held since 1938.

J. Charles Rathbun, formerly associate professor of civil engineering at the College of the City of New York, was recently made professor of civil engineering effective Jan. 1, 1942.

Walter D. Binger, commissioner of borough works, Borough of Manhattan, New York, and chairman of the national committee of the American Society of Civil Engineers on civilian defense in wartime, has been selected by the War Department to go to England to study a wide variety of technical engineering aspects of civil protection. Mr. Binger is chairman of the War Department's national technological civil protection committee.

C. M. Matthies, district maintenance engineer for the Minnesota State Highway Department at Virginia, Minn., is assigned to special engineering duties at St. Paul. He will be succeeded at Virginia by **E. R. Boyce,** former acting maintenance engineer at Marshall.

Col. Joseph Mehaffey has been assigned to The Panama Canal Zone as engineer of maintenance, succeeding **Col. Raymond A. Wheeler.** Colonel Mehaffey, who has served two previous tours of duty in the Canal Zone, was most recently stationed at the headquarters of the First Army Corps in Columbia, S. C. Colonel Wheeler has been appointed to the post of assistant chief of staff for G-4 of the Army's general staff.

Three major highway improvements for Illinois

Governor Dwight H. Green of Illinois has instructed Public Works Director Walter A. Rosenfield to draw plans immediately for building a four-lane express highway on Route 66, covering 300 miles from Chicago to St. Louis.

Widening and renovating of the road to Chicago, through Springfield to St. Louis will take five years, and cost approximately $20,000,000. It is expected that half the expense will come from the federal government. However, the project is of such importance that the state would undertake it alone.

A second major highway improvement authorized is for straightening and rebuilding the historic Lincoln Highway, Route 330 from Geneva through Rochelle, Dixon and Sterling.

A third highway program will be undertaken to rebuild another of the state's most historic roads, Route 50 from Lawrenceville through Olney, Flora, Salem and Centralia to St. Louis.

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Sewage Federation plans "get-acquainted" night

On Oct. 8, the eve of the second annual convention of the Federation of Sewage Works Associations, a "get-acquainted" meeting will be held at the Hotel Pennsylvania in New York City. Charles A. Emerson, president of the federation, announced this as a special feature of the convention that was not included in the original program.

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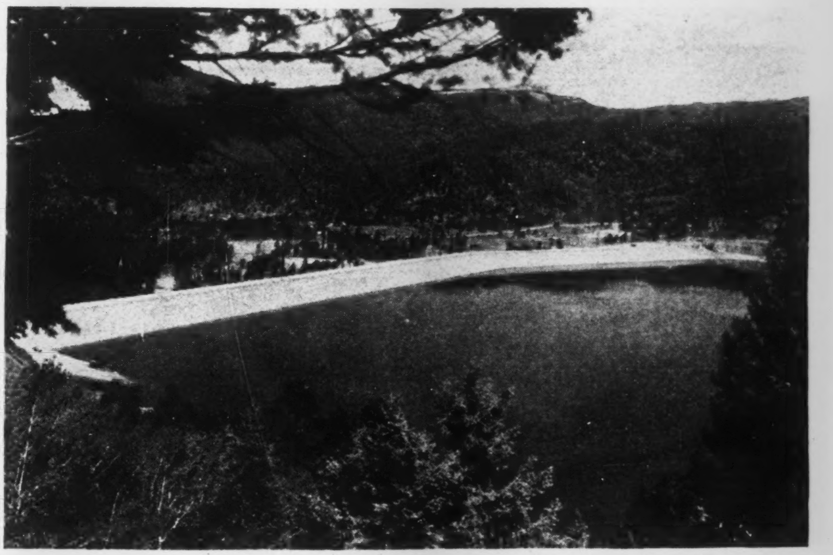
Repaving costs too high for track rail salvage

Although the city of Columbus, Ohio, is included in a list of fifteen Ohio municipalities in a proposed WPA program for salvaging abandoned street car tracks for defense steel it will be unable to participate unless $33,000 for paving work can be secured, according to City Engineer Paul Maetzel. The amount of money that would be raised from the sale of the steel rails is estimated at $10,000, or $33,000 short of the cost of repaving where the rails would be removed.

J. L. Kelly, district WPA manager, states that the proposed program designed to relieve the existing steel shortage in the national defense program would net about 7,200 tons of steel in the fifteen municipalities and that the steel would be shipped to assembly points designated by the Office of Production Management. Other Ohio cities eligible to participate in the rail salvage program, along with the tonnage of steel they might supply, are: Newark, 2,350 tons; Delaware 428 tons; Kenton 295 tons; London 190 tons; Chillicothe 150 tons; West Jefferson 150 tons; Richwood 72 tons; Mt. Vernon 53 tons; Circleville 43 tons; and Xenia 38 tons.



Bureau of Reclamation completes Vallecito Dam

Completion of Vallecito Dam on the Pine River in southwestern Colorado, brings the number of Bureau of Reclamation water storage reservoirs in the west to eighty.

The new dam is an earth-filled structure protected on the upstream slope with a 3-ft. layer of quarried rock riprap, and on the downstream slope with a heavy cobble and rock fill. The crest length of the dam exclusive of the spillway is 4,000 ft., the maximum height is 150 ft. and the base thickness is approximately 600 ft. Total volume of the embankment, including riprap and cobble fill is 3,700,000 cu.yd.

A reinforced concrete outlet conduit, constructed in open-cut near the right abutment, conveys water through the dam. The conduit is 610 ft. long, has a capacity of 3,100 second feet, and discharge is controlled by two 5x5-ft. hydraulically-operated slide gates. The outlet conduit discharges into the emergency spillway channel which is a concrete-lined open channel 2,330 ft. long located at the right abutment. The spillway has a capacity of 30,000 cfs., controlled by three automatically-operated radial gates, each 37 ft. long and 19 ft. high.

The reservoir created by the dam will extend about 3 miles up the Pine River Valley, and about 6 miles up the valley of Vallecito Creek, a tributary of the Pine River. Both rivers originate high in the San Juan Mountains near the Continental Divide. At its maximum storage level (7,665 ft. above sea level) the surface area of the lake is 2,723 acres, and at the minimum elevation (7,582.5) to which the reservoir can be lowered, it contains 4,300 acre feet of dead storage covering an area of 380 acres.

Construction began on May 14, 1938 and the project cost an estimated $3,300,000. Martin Wunderlich Co., Jefferson City, Mo., held the general contract on a bid of $2,115,870.

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Mobile's vehicular tunnel is paying its way

More than 3,302 vehicles passed through Bankhead Tunnel daily during August, a record-breaking month from the standpoint of business. During the month 102,364 vehicles used the tunnel.

August collections amounted to $27,184.70, which provided a net profit of $22,651.94 after the monthly expenses of $4,532.76 were deducted. The month's operations permitted another $25,000 to go into the sinking fund, raising its balance to $50,000, which is sufficient to pay off bond interest due November 1.

Bid prices rising on North Carolina road work

W. Vance Baise, chief engineer of the North Carolina Public Works Commission, announced Sept. 5 that an increase of from 30 to 35 percent has been noted during the past four months in bids for North Carolina road projects.

One reason that road bids have increased Mr. Baise reports, is that contractors cannot be sure of getting materials. Other reasons include: higher prices for materials, the uncertainty of future prices, and the general business boom.

Mr. Baise reports that a few projects, mainly bridges, are being held up in North Carolina now because of the inability to get necessary materials.

Pennsylvania Turnpike earns $2,600,000

Pennsylvania's Turnpike earned $2,600,000 during the first eleven months of its operation, it has been announced by Walter A. Jones, chairman of the turnpike commission.

Jones said this amount was sufficient to pay operation costs and interest of indebtedness for one year, indicating that a profit would be realized for the first year.

Announcement of fiscal operations of the superhighway was prompted by charges made by E. S. Shuck, president of the Central Pennsylvania Hotel Association, in convention recently, who declared the highway was a financial failure.

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Western mountain named for late civil engineer

A hitherto nameless mountain in the Rockies overlooking Isabelle Lake near Ward, Colo., in the Roosevelt National Forest has been named Mount Toll in honor of the late Roger W. Toll, civil engineer who was once superintendent of the Rocky Mountain National Park in Colorado and later of Yellowstone National Park. The peak is 12,900 ft. high.

Mr. Toll, who died in 1936 as the result of an automobile accident, received a civil engineering degree from Columbia University in 1906. For a time he worked with the Massachusetts state board of health, the U. S. Coast and Geodetic Survey, and then with the Denver City Tramway Co., now the Denver Tramway Co. For a time he was chief engineer in charge of the engineering department of the latter organization. Soon afterward he went into the National Park service.

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Mexico to accelerate railroad construction

Acceleration of construction of the Southeastern Railroad which the Mexican government started to build in 1937 has been ordered by President Camacho. The main line at least, a route of about 500 miles, is expected to be finished by the end of this year. President Camacho desires that the main line be completed as soon as possible so that rich production areas of Vera Cruz, Tabasco, Chiapas, Campeche and Yucatan states can have rail transportation facilities.

Several sections of the Southeastern's main line are now in service. The Mexican Ministry of Communications and Public Works has charge of the construction activities.

JOBS OF THE WEEK

WAR DEPARTMENT BUILDING, Alexandria, Va.

Doyle & Russell, Wise Contracting Co., both of Richmond, Va., and John McShain, Inc., Phila., Pa., have been awarded a joint contract by the War Department, Washington, D. C., for office building, Columbia Rd. and Highway No. 1, near here.

CAMP, Fort Smith, Ark.

A. Farnell Blair, Decatur, Ga., will construct armored division camp near here at cost of $15,512,786. Constructing Quartermaster, Fort Smith, awarded contract. Black & Veatch, Kansas City, Mo., are engineers.

WAREHOUSE, Navy Yard, Philadelphia, Pa.

Turner Construction Co., New York, N. Y., was lowest bidder constructing warehouse at Navy Yard for Bureau of Yards & Docks, Washington, D. C., at cost of $2,078,000.

PLANT ADDITIONS, Waukegan, Ill.

American Steel & Wire Co., Chicago, Ill., has awarded contract for foundations for plant additions to American Bridge Co., Chicago, Ill. Total estimated cost of plant will be $10,000,000.

DEFENSE HOUSING, Euclid, O.

Schirmer-Peterson Co., Cleveland, O., has been awarded contract by the United States Housing Authority, Washington, D. C., for defense housing, to cost $2,000,000. Robert W. Dickerson, Cleveland, O., is architect. Mayer & Valentine, Cleveland, are mechanical engineers.

AIR BASE, Victoria, Tex.

U. S. Engineers, Washington, D. C., has awarded supplemental contract for 44 miscellaneous buildings, officers mess, additional hospital buildings, enlarging gas and oil storage, grading, draining, paving runways, aprons at Advanced Pilot Training School, to cost $1,932,838. Total cost of field is now $3,457,838. American Friedman Bitulithic Association, Houston, Tex., are contractors.

TEMPORARY BUILDINGS, Presque Isle, Me.

Joseph E. Bennett Co., Boston, Mass., has been awarded contract for constructing temporary buildings at Army Base, including barracks, storehouses, hospital, mess hall, officers quarters, for U. S. Engineers, Boston, Mass. Estimated cost $1,144,987.

HANGARS, etc., Estevan, Sask.

Bird Construction Co., Winnipeg, Man., will construct four hangars and other buildings at Flying School for Department National Defense for Air, Ottawa, Ont. Estimated cost $1,000,000.

PLANT, St. Louis, Mo.

American Can Co., New York, N. Y., production plant contract awarded to Norris Construction Co., Chicago, Ill. Estimated cost $1,750,000. C. G. Preis, architect and engineer.

BARRACKS, Opa Locka, Fla.

Fred Howland, Inc., Miami, Fla., has been awarded contract for barracks, oil storage building for Navy Department, Washington, D. C., at cost of $1,222,000.

DEFENSE HOUSING, Philadelphia, Pa.

M. Shapiro & Sons, New York, N. Y., will construct 1,000 homes for defense workers north of Pennypacker Park, for Mutual Ownership Defense Housing Div., FWA. at $3,644,750. This is correction of item published August 18 issue, showing correct owner.

HOUSING, Wayne, Mich.

Mutual Ownership Defense Housing Div., FWA, Washington, D. C., received low bid from Herbert E. Mitler, Inc., New York, N. Y., at $1,232,000 for 300 unit housing project. Burns Roensch, Detroit, Mich., is architect. Joseph McMahon, Detroit, Mich., is engineer.

AIRPORT, Ottawa, Ont.

McNamara Construction Co., Ltd., Leaside, Toronto, will develop airport, including grading, surfaced runways, taxi strips, hangars, for flyers at unnamed station on Eastern Atlantic Coast for Department Transport and National Defense for Air, Ottawa, Ont. Estimated cost $1,000,000.

AIR BASE, Houlton, Me.

U. S. Engineers, Boston, Mass. have awarded contract for construction temporary buildings, at air base including barracks, recreational buildings, storehouses, mess, quarters, fire station, guard station, gasoline storage, storehouse, control tower, parachute building, hospital, administration building, reformatory, boiler house and utilities to T. W. Cunningham, Inc., Bangor, Me., $894,000.

NOTE—Additional bidding and contract news on over 800 projects large and small appear in the Construction News section beginning on page 15.

PRIORITIES GUIDEPOST

Current notes on what, who and how

HIGHWAY WORK should be freed of the delays which have been reported from many parts of the country recently due to lack of priority ratings by the preference ratings assigned to defense highway work last week (*ENR* Sept. 11, p. 335). The Public Roads Administration emphasizes the fact that these ratings are not automatically assigned. Applications for ratings for federal-aid and state-highway projects must be made through local PRA representatives, as outlined last week. How projects not on the state or federal systems, such as some camp access roads, will get approval has not been specified. The ratings are as follows:

1. Access Roads:
   a. Access Roads to Military and Naval Establishments.

      Preference rating of access-road projects shall correspond to the rating of the military and naval establishment served; that is, a naval air station or army air base will have a rating of A-1-e, and an army cantonment other than air corps would have a rating of A-1-j.

   b. Access Roads to Defense Manufacturing Establishments.

      Preference rating of the access-road project shall correspond to the rating of the defense establishment served, except that the highest rating which can be assigned is A-1-e.
2. Strategic Network of Highways:
   a. All bridges, tunnels, structures and approaches A-2
   b. New roads or the improvement of substandard roads and grade separation structures A-4
   c. Shoulder widening and minor drainage structures A-10
   d. All other work B-3
3. Federal-aid system:
   a. All bridges, tunnels, structures and approaches A-3
   b. New roads or improvement of substandard roads, and grade separation structures A-7
   c. Shoulder widening and minor drainage structures A-10
   d. All other work B-3
4. Federal-aid Secondary and National Park and Forest Projects:
   a. Bridges and approaches A-7
   b. New roads or the improvement of substandard roads and grade separation structures A-10
   c. All other work B-3
5. Projects for the construction or improvement of the Inter-American Highway A-3
6. Construction of the Trans-Isthmian Highway and the Chorrera-Rio Hato Highway in Panama A-1-b

These preference ratings may be granted for any defense highway work of the state highway departments regardless of whether or not it receives any federal aid. The current program of defense roads financed with federal aid includes 2,142 miles under construction and 1,775 miles programmed.

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New York hospital moved by public works dept.

Engineering and construction supervision on moving the five-story, 2,300-ton hospital building near East River Drive in New York City was handled by the Department of Public Works of New York City. This was erroneously credited in last week's issue to the Office of the President of the Borough of Manhattan, which is handling the construction of East River Drive.

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Lieberman resigns as Illinois highway chief

Ernst Lieberman, chief highway engineer of Illinois since 1933, has resigned effective October 1. He has been ill for several months and asked Governor Dwight Green to be relieved of his duties because of ill health. M. J. Fleming, assistant chief highway engineer, who has been with the highway department for 20 years, has been acting as chief highway engineer. As yet Governor Green has not announced Mr. Lieberman's successor.

At the time the late Henry Horner was elected governor in 1932 Lieberman was a member of the Chicago Board of Local Improvements. He was appointed to the highway job early in Horner's administration, and was retained by Gov. John Stelle upon Horner's death last year. Governor Green has made no changes in the highway department since his election.

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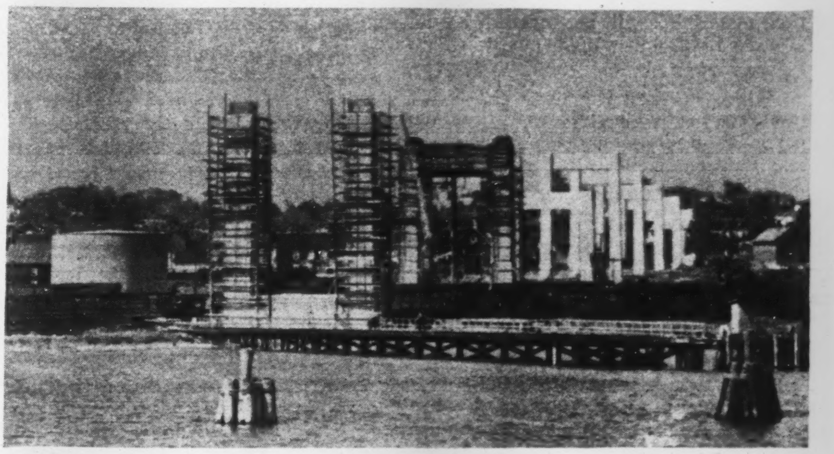
Priority denied to Delaware River Tunnel

All hope faded last week of having the proposed Delaware River Tunnel between Hog Island and Gloucester County, of New Jersey, included as a national defense emergency project, when Federal Loan Administrator Jesse H. Jones refused to grant priority to the project.

Mr. Jones announced that the tube would be included in the new public works program which is being drawn up to bolster post-war economy and cushion the shock of stoppage of defense production, and would be one of the first projects to be constructed after the defense emergency.

The proposed tunnel had been estimated to cost about $19,000,000 and its sponsors had hoped to secure necessary financing through the R.F.C.



Land piers for high-level bridge at New London

Piers for the approach spans of the new highway bridge over the Thames River at New London, Conn., are rising high above the buildings along the city's waterfront. The new bridge is to provide a high-level crossing over the navigable channel of the Thames River to end the serious congestion caused by frequent openings of the swing span of the present highway bridge. It will have a total length of 5,890 ft., made up of deck girders and trusses on the approach spans here shown and on the Groton side of the river and a central span over the channel consisting of a 1,255-ft. cantilever truss with a clear height of 137.5 ft. over mean low water.

Contractors are as follows: substructure, A. I. Savin Construction Co.; superstructure, Harris Structural Steel Co. The bridge is being built for the New London Bridge Commission, owners of the project, by the Connecticut Highway Department, William J. Cox, commissioner, L. G. Sumner, engineer of bridges and structures. Parsons, Klapp, Brinckerhoff & Douglas are consulting engineers.

BRIEF NEWS

Opening of the Rainbow Bridge over the Niagara Gorge at Niagara Falls, N. Y., previously set for October 7, has been postponed. It has been found that additional work will be required to complete the approaches, and that the formal opening for vehicles and pedestrian traffic will be delayed until late October.

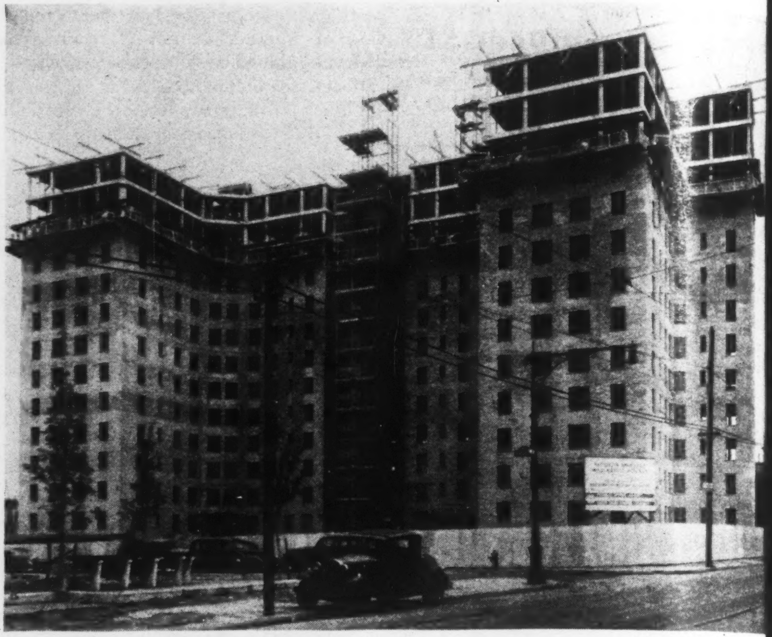
Although Governor Heil of Wisconsin has made known that he considers the withholding of any further highway construction this year "a sound idea," it is believed that the governor's plan will not seriously curtail "promised" projects scheduled for the balance of 1941. W. E. O'Brien, chairman of the state highway commission, reports that the governor can be expected to sign contracts for $1,125,000 worth of work.

Work has been resumed on the concrete section of the $3,000,000 flood wall at Paducah, Ky., after the government placed a priority rating on the barrier, opening the way for the purchase of steel and other materials. The wall was placed in the national defense category in order to speed completion.

Price Administrator Leon Henderson has announced that prices of the upper grades of Douglas fir lumber, one of the most important of all primary construction materials, will be reduced on an average of $10 per 1,000 board feet to become effective on October 1. The schedule covers all types of Douglas fir; however, maximum prices set for the common grades, boards, "dimension," and timbers, do not differ greatly from quotations that have prevailed in the lumber markets for some time past. It is estimated that the new price schedule will save the defense program and civilian users approximately $5,000,000 over the next 12 months.

Attorney General Rushton of Michigan has ruled that $307,000 collected by the state in 25-cent fees for the issuance of half-year auto license plates belongs to the state's general fund and is not highway revenue. This money, collected since Dec. 8, 1938, when the state's antidiversion constitutional amendment went into effect, represents "fees" and not "taxes," the attorney general held.

About 20 miles of street railway track in Louisville, Ky., are to be removed by WPA, and the steel rails will be used as scrap to boost steel production for national defense purposes. The Louisville Railway Co. is modernizing its equipment and new buses will be used in place of cars on this 20-mile section.



Albert Rothschild pho

Night concreting speeds housing for Navy men

To provide housing in a hurry for enlisted personnel of the U. S. Navy based at the Brooklyn Navy Yard construction of the 13-story concrete-frame building shown here was started June 30 and concrete topped out at the 14th floor (roof) on Aug. 29 after 37 actual working days.

The superstructure was erected with two complete sets of floor and column forms and use of high-early strength cement to permit quickly resuming construction on a new floor and early stripping of forms. Work was scheduled to have a floor ready to start placing concrete in the early evening to gain a day's time.

At 5 A.M., of the morning following placing, engineering parties started layout of the next floor and at 8 A.M. the carpenter crew started erection of the next floor forms whi were completed in an average of less than days. Brick work was carried up at the ra of three floors in two days.

The building has 10,500 sq.ft. per floo and will have 207 living units on the 13 floo Contract cost of the building with interi finish is $607,000 which amounts to 39c. p cu.ft., unusually low for the New York are Corbetta Construction Co. of New York contractor with Fred Narr, superintendent an Edw. W. Stearns project manager.

Financed entirely by the federal governmen the work is being done by the New York Ci Housing Authority (A. Wiltshire, inspector for the U. S. Housing Authority (residen manager W. H. Martin).

Survey for White River dam to be started

Survey work will begin at once on project reports for Bull Shoals and Table Rock dams on the upper White River, according to Maj. J. R. Crume, Jr., executive officer for the Little Rock District, U. S. Engineers. An allotment of $200,000 has been received for this work, construction of which was authorized recently by Congress. The fund will be divided equally between the two projects.

Bull Shoals dam site is on the White river, about 15 miles above Cotter, Ark. The Table Rock dam will be constructed about three miles west of Branson, Mo. Both dams will be concrete structures designed for generation of hydroelectric power and storage of flood waters.

Steel bridge design competition announced

The American Institute of Steel Con struction has announced its Annua Bridge Design Competition, which open to bona fide registered students structural engineering and architectur in recognized technical schools of th U. S. and its possessions. Three cas prizes of $200, $100, and $50, respec tively, for the designs placed first, second and third, will be awarded.

The subject of the competitive desig is a steel highway bridge to carry a road way over a river crossing.

Drawings must be received at the ex ecutive offices of the American Institut of Steel Construction, 101 Park Ave. New York City, not later than Feb. 1 1942.

OBITUARY

Harry A. Sniff, 78, retired builder who was engaged in the contracting business in Columbus, Ohio for 45 years, died Sept. 1 in that city.

John R. Peavy, who was made head of the Mobile, Ala. municipal water works in May 1940, died in that city last week. Mr. Peavy was assistant engineer in Mobile for nine years, and for four years was with the Alabama State Highway Department.

Thomas J. Hinton, 38, engineering draftsman with the U. S. Engineers and stationed at Onawa, Ia., died recently.

Louis F. Buff, 65, president and director of the Buff & Buff Mfg. Co., Jamaica Plain, Mass., died in a Boston Hospital Aug. 29. Earlier in life Mr. Buff was employed with New York, New Haven & Hartford R.R. and in 1907 was made general manager of Buff & Buff.

Robert Bartley, 70, superintendent of municipal water plant at Asbury Park, N. J., for the last 30 years, died in that city Sept. 6.

John H. McManus, 59, who retired in February as chief of Bureau of Claims of the Board of Water Supply of the City of New York, died in Kingston, N. Y., Sept. 6. Mr. McManus graduated in 1905 from Massachusetts Institute of Technology, where he taught a year before joining the New York Board of Water Supply.

Charles Louis Hogan, 61, president and general manager of the Lone Star Cement Corp., died in New Rochelle, N. Y., Sept. 5. Mr. Hogan, who had served as president of the Lone Star Firm since November, 1933, in 1926 was elected vice president of that organization and in 1928 became senior vice president of the firm.

H. Craig Severance, 62, New York architect who designed and supervised construction of numerous buildings in the Eastern part of the United States, died in Neptune, N. J., Sept. 2. Just before his death Mr. Severance was supervising a $2,500,000 construction project for the Lakehurst (N. J.) Naval Air Station.

Eugene H. Morey, 79, who was head of the Bureau of Roads and Bridges for the Nebraska State Highway Department from 1917 to 1923, died Sept. 3 at Lincoln, Nebr. Prior to his connection with the Nebraska State Highway Department, he served as special engineer for the Union Pacific Railway Co.

R. K. Stewart, 75, senior member of the contracting firm of R. K. Stewart & Son, died Sept. 6 at High Point, N. C. Mr. Stewart built the first waterworks system in High Point.

Frank A. Sherman, 62, secretary-treasurer of the contracting organization of R. A. Sherman's Sons Co., Westerly, R. I., died Sept. 10 at Bethel, Me. He was a graduate of the Massachusetts Institute of Technology.

David L. Walker, 71, road and general contractor, died Sept. 10 at Lexington, Ky.

William C. Hollingsworth, 41, resident engineer for the North Carolina Highway and Public Works Commission, died at Silver City, N. C., Sept. 9. Mr. Hollingsworth had been a highway engineer for 20 years and had served in seven states, having joined the North Carolina Commission five years ago after having served in a similar capacity in South Carolina. Mr. Hollingsworth received his technical education at Clemson College and at the Alabama Polytechnic Institute.

Joseph Schmideler, 67, construction superintendent for the Milwaukee (Wis.) county highway department, died Sept. 8 at Milwaukee, Wis. Mr. Schmideler had been an employee for 26 years.

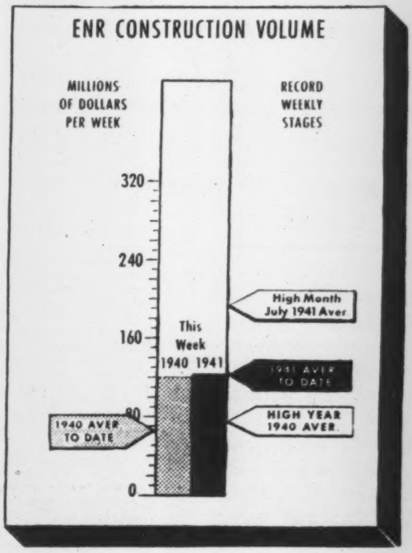
CONTRACTS AND CAPITAL

Engineering Construction awards for the week total **$120,315,000**, a decline of 2 percent from the average weekly volume for 1941 to date, 0.4 percent under the awards for the corresponding 1940 week, and 14 percent below the preceding week's total.

Private awards are 37 percent higher than a week ago due to the increased volume of industrial building construction, but are 22 percent lower than in the 1940 week. Public construction is 20 percent lower than last week, but up 6 percent compared with the week last year.

The current week's awards bring 1941 construction to **$4,679,434,000**, a 95 percent increase over the 38-week period last year. Private awards, **$944,579,000**, top the 1940 period by 32½ percent, and public construction, **$3,734,855,000**, is 121 percent higher as a result of the 328 percent gain in federal work.

In the classified construction groups, gains over last week are in sewerage, industrial buildings, earthwork and drainage, and streets and roads; increases over the 1940 week are in waterworks, sewerage, and public buildings.



New capital for construction purposes for the week totals **$8,863,000**. This compares with **$256,916,000** for the week last year. The week's new financing is made up of **$5,003,000** in state and municipal bond sales, and **$3,860,000** in corporate security issues.

New construction capital for the year to date, **$5,851,527,000**, exceeds the financing for the 38-week period last year by 110 percent.

CONTRACTS

(Thousands of dollars)

	Week Ending Sept. 19 1940	Sept. 11 1941	Sept. 18 1941
Federal	$52,275	$103,622	$81,832
State & Municipal	41,848	20,706	17,717
Total public...	$94,123	$124,328	$99,549
Total private..	26,686	15,150	20,766
TOTALS	$120,809	$139,478	$120,315

Cumulative
1941......(38 weeks)......$4,679,434
1940......(38 weeks) $2,400,796

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1940 38 weeks	1941 38 weeks
NON-FEDERAL	$1,361,614	$1,025,409
Corp. Securities....	200,950	306,117
State & Mun......	607,996	340,632
U.S.H.A. loans.....	173,073	30,399
R.F.C. loans.......	195,595	84,761
R.E.A. loans	......	100,509
Federal Aid—Hwy..	184,000	163,000
FEDERAL	$1,418,572	$4,826,118
TOTAL CAPITAL....	$2,780,186	$5,851,527

FHA MORTGAGES

	Week-Ending Sept. 14 1940	Sept. 6 1941	Sept. 13 1941
Selected for appraisal ...	$28,172	$23,185	$26,893

Cumulative
1941......(37 weeks)......$1,067,886
1940......(37 weeks)...... $928,297

* Subject to revision.

ENR INDEX NUMBERS

Index Base=100		1913	1926
Construction Cost..	Sept. '41..	263.12	126.48
Building Cost......	Sept. '41..	214.58	116.00
Volume	Aug. '41..	434.00	190.00

CONTRACT UNIT PRICES

What contractors are bidding on different kinds of construction work

FOUNDATION WALLS, DUQUESNE WAY, PITTSBURGH

OWNER: Allegheny County Commissioners, Pittsburgh, Pa.

PROJECT: Reconstruction of Water Street and Duquesne Way (Contract 11) including foundation and retaining walls for upper west-bound roadways. Involves all required excavation, embankment, culverts, manholes and catchbasins, gratings, demolition, and concrete work.

CONDITIONS: Contractor to furnish all material, tools, plant and equipment, and complete work in 240 days. Rail, highway and water transportation facilities available. Wage rates are: skilled labor, $1.50 per hr. (average); semi-skilled, $1.00; and common, 65 to 80c.

BIDS: Five bids were opened July 22, 1941, ranging from the contract low of $540,914 to $689,995.

LIST OF BIDDERS:

1. John F. Casey Co., Aspinwall, Pa. (contract)	$540,914
2. Frank Donatelli Co., Inc., Pittsburgh, Pa.	583,435
3. Dinardo, Inc., Pittsburgh, Pa.	583,715
4. Navarro Corp., Pittsburgh, Pa.	632,927
5. George Vang, Inc., Pittsburgh, Pa.	689,995

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Excavation, Class I	7,500 c. y.	$0.40	$0.60	$1.00
2. Add'l. compensation for removal and disposal of artificial underground structures	10 ea.	5.00	5.00	3.00
3. Embankment, granulated slag	68,000 c. y.	.60	.55	.65
4. Conc., Cl. B, end walls and footings	8 c. y.	25.00	25.00	35.00
5. 10-in. c. i. pipe sewer, incl. spec	60 l. f.	5.50	4.50	10.00
6. 12-in. rein. conc. pipe culvert	60 l. f.	2.50	2.50	4.00
7. 15-in. rein. conc. pipe culvert	108 l. f.	3.00	4.00	4.00
8. Brick catch basin, type 1 (city std.) incl. all castings	1 ea.	285.00	175.00	150.00
9. Brick catch basin, type 1	1 ea.	285.00	175.00	150.00
10. Spec. brick manhole for City Water Bur	1 ea.	500.00	275.00	1,600.00
11. Brick manhole on r.c. chamber (Cl. B).	5 ea.	1,000.00	850.00	1,750.00
12. Spec. br. manhole on r.c. chamber (Cl. B)	1 ea.	500.00	1,000.00	1,500.00
13. Spec. rein. conc. (Cl. B) storm inlet	1 ea.	100.00	175.00	125.00
14. Extra depth manholes	20 l. f.	40.00	10.00	30.00
15. Malleable iron gratings (Cast No. 19)	3 ea.	20.00	25.00	25.00
16. Demolish frame office bldg	L.S.	20.00	10.00	50.00
17. Demolish conc. fl. and columns	L.S.	2,500.00	500.00	2,000.00
18. Demolish frame structure	L.S.	50.00	10.00	50.00
19. Excavation, Class II	7,000 c. y.	1.25	1.00	2.00
20. Conc., Cl. A-S, facing of stone abut	310 c. y.	40.00	25.00	45.00
21. Conc., Cl. A-S, encasing steel columns.	50 c. y.	40.00	25.00	45.00
22. Conc., Cl. B, walls, abuts. and footings	12,200 c. y.	16.00	20.00	18.00
23. Med. carb. steel for anchor bolts; and misc. pieces wr. iron for ladders	14,000 lb.	.20	.15	.25
24. Copper, in place	5,500 lb.	.60	.50	.60
25. Steel reinforcing bars	1,020,000 lb.	.05	.06	.06
26. Piles; conc. cast-in-place, st. shell	69,000 l. f.	2.25	2.25	2.50
27. Sheeting, shoring and bracing, left in place	20 Mbm.	30.00	30.00	30.00
28. Steel sheet piling, left in pl	5,000 s. f.	.10	.50	1.00
29. Mooring rings, incl. castings and fastenings	38 ea.	175.00	150.00	90.00
30. Holes drilled in stone or conc	850 l. f.	.60	.75	125.00
31. Contr. tools, plant, equip. and overhd.	L.S.	47,000.00	42,850.00	15,000.00

RUNWAYS AND TAXIWAYS MUROC BOMBING RANGE, CALIF.

OWNER: U. S. Engineer Office, Los Angeles, Calif.

PROJECT: Construction of runways, taxiways, aprons and appurtenant facilities at Muroc Bombing Range, near Muroc Lake, Kern County, Calif., approximately 30 miles northeast of Lancaster. Involves improvement of area about 365,000 sq.yd., and includes all excavation, filling, grading, paving, drainage facilities and other miscellaneous work.

CONDITIONS: Contractor to furnish all materials and complete work in 120 calendar days. Railroad siding at site, and highway transportation facilities available. Wage rates are: skilled labor, $1.50 per hr.; semi-skilled, $1.25; and common, 72c.

BIDS: Four bids were opened June 30, 1941, ranging from the contract low of $1,300,404 to $1,683,900.

LIST OF BIDDERS:

1. James L. Ferry; E. P. Ferry; Sander Pearson; and Haines Canyon Materials Co., Glendale, Calif.	$1,300,404
2. Bressi & Bevanda Constructors, Los Angeles, Calif.	1,339,058
3. Basich Bros. and Oswald Bros., Torrance, Calif.	1,485,581
4. Charles L. Harney, San Francisco, Calif.	1,683,900

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Clearing and grubbing	240 ac.	$20.00	$15.00	$100.00
2. Rough grading	240,000 c.y.	.30	.30	.45
3. Fine grading	382,000 c.y.	.05	.04	.04
4. 6-in. grav. base for conc. paving	422,600 s.y.	.32	.40	.77
5. 9-6-9-in. concrete pavement	418,800 s.y.	2.26	2.35	2.13
6. Tie-down anchor, complete	2,365 ea.	2.75	1.50	1.40
7. 21-in. rein. concrete pipe	4,550 l.f.	5.50	4.00	4.00
8. 15-in. corr. met. pipe sleeve	420 l.f.	3.75	3.00	3.50
9. 18-in. corr. met. pipe sleeve	130 l.f.	4.00	3.50	3.50
10. Catch basin, type A	12 ea.	150.00	200.00	200.00
11. Catch basin, type B	1 ea.	300.00	300.00	400.00
12. Conc. in misc. structures	95 c.y.	40.00	20.00	30.00
13. Conc. backfill, class C	940 c.y.	25.00	13.00	15.00
14. 8-in. cast iron pipe	5,080 l.f.	3.00	2.75	3.50
15. 6-in. cast iron pipe	230 l.f.	2.50	2.00	3.00
16. 2-in. cast iron pipe	5,120 l.f.	1.50	1.00	2.00
17. 8-in. gate valve	4 ea.	60.00	75.00	75.00
18. 6-in. gate valve	23 ea.	45.00	50.00	50.00
19. 2-in. gate valve	24 ea.	20.00	30.00	16.00
20. Flushing hydrant	24 ea.	50.00	45.00	60.00
21. Fire hydrant	23 ea.	125.00	150.00	150.00
22. Concrete vault	2 ea.	1,000.00	1,350.00	2,000.00
23. Conc. encased single duct, 3-in	4,200 l.f.	1.50	1.00	1.25
24. Conc. encased 2-duct bank, 3-in	700 l.f.	2.25	1.60	2.00
25. Conc. encased 2-duct bank, 4-in	840 l.f.	2.50	2.00	3.50
26. Conc. encased 4-duct bank, 4-in	140 l.f.	4.00	3.00	6.00
27. Conc. encased 8-duct bank, 4-in	310 l.f.	6.00	7.00	12.50
28. Conc. encased 16-duct bank, 4-in	330 l.f.	10.00	12.00	21.00
29. Junction and receptacle unit	23 ea.	200.00	175.00	300.00
30. Misc. elect. equip. and wiring	L.S.	8,000.00	8,000.00	10,000.00
31. 10-in. gate valve	1 ea.	140.00	150.00	100.00

HIGHWAY, NORTH CAROLINA

OWNER: North Carolina State Highway and Public Works Commission, Raleigh.

PROJECT: Concrete paving, fine grade on U. S. Routes 17 and 264 between intersection of the above routes and North Carolina Route 33 and Pamlico River. Approximately 2.75 miles in length. Roadway 18-ft. and 22-ft. Widening of portion of roadway also included in letting.

CONDITIONS: Contractor to furnish all materials and complete roadway in 60 days. Highway transportation facilities available. Wage rates specified are: skilled labor, 55c. per hr.; semi-skilled, 35c.; and common, 30c.

BIDS: Three bids were opened July 29, 1941, ranging from the low of $85,128 to $92,935.

LIST OF BIDDERS:

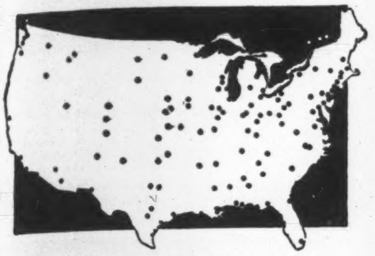
1. J. S. Hill Corp., Washington, N. C.	$85,128
2. Ballenger Paving Co., Greenville, S C.	89,658
3. Cobb & Homewood, Inc., Chapel Hill, N. C.	92,935

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Unclassified excavation	6,400 c. y.	$0.47	$0.50	$0.45
2. Borrow excavation	5,000 c. y.	.47	.50	.45
3. One-half mile overhaul	1,000 c. y.	.05	.06	.05
4. Traffic bound macadam base crse	750 ton	3.60	4.00	3.90
5. Conc. pavmt. (9-7-7-7-9-in.) 22-ft.	20,040 s. y.	2.37	2.45	2.60
6. Conc. pavmt. (9-7-7-9-9-7-7-9-in.) 18-ft.	230 s. y.	2.80	3.00	4.00
7. Conc. pavement (8-in. unif.) widen	1,420 s. y.	2.55	2.65	2.70
8. Rein. conc. pavmt. (9-7-7-7-9-in.) 22-ft.	5,570 s. y.	2.55	2.70	2.85
9. Class C conc. (headwalls)	3 c. y.	25.00	30.00	30.00
10. 18-in. rein. conc. pipe extension	20 l. f.	2.50	3.00	3.00
11. 24-in. rein. conc. pipe extension	8 l. f.	4.00	4.00	4.00
12. Stone shoulder drains	60 c. y.	4.50	5.00	5.00
13. Raised edge curb (3x9-in.)	6,740 l. f.	.20	.25	.20
14. Wire cable guard rail	7,856 l. f.	1.07	1.15	1.15
15. Conc. surface drains	13 ea.	20.00	30.00	35.00
16. Galv. metal funnels (type 2)	13 ea.	25.00	30.00	32.50
17. 10-in. corr. metal pipe	268 l. f.	1.00	1.10	1.20
18. Barbed wire fence reset	100 l. f.	.02	.025	.025
19. Hogwire fence reset	100 l. f.	.02	.035	.035
20. Comb. barb and Hogwire fence reset	100 l. f.	.02	.05	.05
21. Other fence reset	100 l. f.	.02	.03	.06
22. Right-of-way markers	6 ea.	2.50	3.00	2.75

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents



Symbols and Abbreviations Include:

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges, Grade Cross'gs
Streets & Roads
Earthwork, Waterways
Unclassified
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: All low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

WATER SUPPLY

PROPOSED WORK

†Calif., March Field—U. S. Eng., 751 S. Figueroa St., Los Angeles, indefinitely postponed bids to have been opened Sept. 8, altering Pump. Plant 1. CD 9/3.

Calif., Ventura—Surveys, adequate water supply. Over $15,000. Taylor & Taylor, 725 S. Spring St., Los Angeles, engrs.

Ill., Springfield—City Water, Light & Power, City Hall, watermains, extens. $40,000. S. T. Anderson, City Hall, administrative ass't.

Ill., Vandalia—Exten. watermains. $23,000. Decatur Eng. Serv., Decatur, engrs.

Ia., Corning—Rejected bids Sept. 8, supplementary water supply sys., dam, artificial lakes, spillway and piping. $35,000. Will advertise for bids in January. Henningson Eng. Co., Standard Oil Bldg., Omaha, Neb., engrs. CD 8/12—ENR 8/14.

Ia., Council Bluffs—Preliminary report intake at Missouri River and pipeline from intake to waterworks plant. $153,000. Applied for PWA funds. Burns & McDonnell, 107 W. Linwood Blvd., Kansas City, Mo., consult. engrs. CD 9/10.

Ia., Waterloo—Elevated water storage facilities, Prospect Sect. and watermain extens. Over $25,000. Maturity 1942.

Mo., Neosho—Pipelines, filtration plant. $15,000. H. T. Lawrence, 3324 NW 14 St., Oklahoma City, Okla., engrs.

★**Mo., Neosho**—City Clk., WW imprvs., addns., storm and sanitary sewer addns. $615,535. Will apply for PWA gr.

N. J., New Brunswick—Extensive alterations, water pump. station, Comstock St. A. Merchant, 1 Elm Row, archt.

†N. C., Jacksonville—Town Comrs. WW imprvs., Docket N. C. 31-213. $225,000. **DPW.**

O., Anna—Water pump. station, distr. lines, sanitary sewerage sys. $100,000. Applied for WPA gr.

★**O., Cleveland**—City, J. A. Hickey, dir. P. Utilities, WW imprvs. 40 m.g. pump. sta., 1 m.g. pump at Kirtland Sta., completing 10 m.g. Nottingham Reservoir and pump. sta., Chardon Rd. and St. Clair Ave., 36 in. main Tiedeman Rd., 48 and 24 in. mains Harvard Ave., Granger Rd., etc. Total est. over $2,755,000. Will apply for DPW funds.

O., Medina—C. D. Richard, village clk., pump. sta. alterations and force main, etc. $65,000. E. D. Barstow, 31 N. Summit St., Akron, engr. CD 9/8—ENR 9/11.

★**Okla., Tulsa**—WW imprvs., boiler, pump. station enlargement, 4 mi. force mains, new pump. additional filtration units. $725,000. Filed application with PWA. W. F. McMurray, Water Dpt. engr.

Pa., Greenville—Boro Council plans formation Boro Water Auth. for water supply and distr. sys. Over $30,000.

★**Tex., New Boston**—Dr. J. R. McGee, mayor, complete new water supply, and imprvs., exten. water distr. sys., incl. lake, filtration plant, pump. plants, etc. $789,500. Applied for DPW funds. Albert C. Moore & Co., 2404 Smith-Young Tower, San Antonio, engrs.

★**Wash., Kirkland**—Metropolitan East Side Water Bd., c/o H. Holland, Bellevue, water distri. and supply sys., serving Kirkland and vicinity. $800,000. Public hearing soon. Parker & Hill, Smith Tower, Seattle, engrs.

BIDS ASKED

Bids Asked September 25

Wash., Seattle—Furnishing 3,806 ft. 21 in. fabricated steel pipe or 20 in. cast iron pipe for installation in E. Marginal Way, C. Warteile, City-County Bldg., engr. CD 9/5—ENR 9/11.

Bids Asked October 8

Pa., Phila.—Dpt. P. Wks., J. H. Neeson, dir., City Hall, furnishing, del., erecting, testing 6 horizontal centrifugal pump and electric motor units for Lardners Point Pump. Sta.; adv. ENR 9/18.

Bids Asked October 14

Ia., Chariton—J. A. Olson, city clk., Sect. 2 earth dam, Sect. 3, structures, Sect. 4 pipeline and pump. sta. for impounding reservoir for WW imprv. and exten. Stanley Eng. Co., Muscatine, engrs. CD 9/3—ENR 9/11.

Bids Asked October 15

O., Medina—WW imprv., exten. mains to sections where industrial plants are built. $65,000. CD 9/11—ENR 9/18.

LOW BIDDERS

†Calif., Campo—Con. Q.M., Camp Lockett, Sept. 3, water supply sys., 250,000 gal. concrete reservoir, 7 mi. pipe line, Camp Lockett, from Contracting Engineers, 2310½ W. Vernon Ave., Los Angeles. **$142,200.** CD 8/28.

†Calif., Fort Baker—Con. Q.M., Fort Mason, Sept. 9, 8 in. water line, Fort Baker, Inv. W 6616-42-13, from E. J. Treacy, Call Bldg., San Francisco. **$15,380.** CD 9/5.

Ia., Sioux City—C. A. Norrbom, city clk., Aug. 26, new roofing, lining on water reservoirs, from B. E. Short, 418 Court St. **$79,654.** CD 8/21.

†Md., Annapolis—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Sept. 3, imprv. water sys., Naval Academy, from Vanguard Constr. Co., 415 Lexington Ave., New York, N. Y. **$73,100.** CD 8/6—ENR 8/14.

CONTRACTS AWARDED

Ark., Booneville—Arkansas Tuberculosis Sanitorium, Booneville, water supply line, also outfall sewer to Worth James Constr. Co., Pyramid Bldg., Little Rock. **$28,193.** CD 7/30—ENR 8/7.

Conn., Hartford—Metropolitan Dist. Water Bureau Bd. Contr. & Supply, 550 Main St., Hartford, regulatory house, filtration plant, West Hartford, to G. Cudemo, Inc., 983 Main St. **$47,000.** Bids 8/25. CD 7/30—ENR 8/7.

†Ga., Fort Benning—Con. Q.M., reservoir, to Williams Lumber Co., 1038 St., Columbus. **$37,000.**

La., Bogalusa—Furnishing, erecting two deep wells, furnishing, installing 2 motor driven deep well pump units, to Carloss Well Supply Co., Concord Ave. and N. 2 St., Memphis, Tenn., **$20,850.** Bids 8/2, awarded 9/9. CD 7/14—ENR 7/17.

Mass., Brookline—Water, Dpt., 329 Washington St., 1 story, 36x47 ft., concrete, brick, water meter bldg. to Daniel Cunningham Constr. Co., 20 Kilby St., Boston. **$20,400.** CD 8/26—ENR 8/28 under LB

†Mass., Fort Andrews—Con. Q.M., concrete reservoir, to White Constr. Co., Mattapan, Sta. Boston. **$29,990.**

O., Hilliard—H. Miller, mayor, water supply, distr. sys., **WPA $135,000.** Burgess & Niple, 568 E. Broad St., Columbus, engrs. CD 9/10—ENR 6/19.

Ore., Beaverton—W. E. McCloskey, mayor, constructing, repairing Beaverton water supply and distr. sys., **WPA. $68,148.** L. L. MacIntyre, city engr.

Pa., Erie—Erie County Electric Co., 12 and French Sts., P. G. Sturtevant, vice pres., additional intake water line from Lake Erie to provide water for generating station, to Nolan & Sons, c/o owner. Est. **$20,000.**

Tex., Mission—Tri-Cities Airport (Mission, McAllen and Edinburg) c/o W. R. Montgomery, Edinburg, 5 m.g. concrete, steel water reservoir, to R. W. Briggs & Co., c/o Sunset Rd., San Antonio, approx. **$76,000.** Est. $100,000.

Tex., Harlingen—V. Ramsey, mayor, water lines, force account. **$22,000.**

†Wash., Fort Lewis—Con. Q.M., digging well, to Roscoe Moss Co., 4360 Worth St., Los Angeles, Calif. **$58,500.**

†Canal Zone—Con. Q.M., 750,000 gal. concrete water storage tank, Forts Clayton and Albrook Field, to H. E. Merryman, P. O. Box 532, Balboa. **$59,800.**

SEWERS, WASTE DISPOSAL

PROPOSED WORK

†Ala., Sylacauga—City, sewage treatment plant, sewerage sys. extens., Docket Ala. 1-101. $274,219. **DPW.**

Calif., Los Angeles—City of Los Angeles Harbor Dpt., City Hall, disposal plant on Terminal Island, San Pedro, for handling waste from fish canneries. Over $25,000. L. Aldrich, City Hall, engr.

†Ga., Hinesville—Town, sewerage sys. and acquisition and imprv. existing WW, Docket Ga. 9-109. $128,000. **DPW.**

★**Ind., Charleston**—Sewerage sys., water mains. $508,000. Applied to FWA for approval.

La., Leesville—Sewage treatment plant. $192,310 PWA gr.

Minn., North St. Paul (br. St. Paul)—A. M. Jankowski, town clk., exten. sewerage sys., constructing sewage disposal plant. Toltz, King & Day, Inc., 1509 Pioneer Bldg., St. Paul, engrs.

Mo., Neosho—Sewage disposal plant. $30,000. H. T. Lawrence, 3244 NW 14 St., Oklahoma City, Okla., engr.

N. J., Cape May—West Cape May Boro, Boro Hall, Cape May, sewers, pump. sta. Over $25,000.

N. J., East Paterson—Boro Hall, alterations, addns., enlarging existing plant for defense housing. McClave & McClave, 600 George Rd., Cliffside Park, engrs.

†N. J., Fort Hancock (Highlands)—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., excavating, rehabilitation storm drains and constructing sewerage sys., Fort Hancock. $60,000. WPA.

†N. C., Jacksonville—Town Comrs., disposal plant and sewerage sys. extens., Docket N. C. 31-122. $225,000. **DPW.**

O., Medina—C. D. Richard, village clk., bond election Nov. 4, sanitary sewerage exten. $65,000. E. D. Barstow, 31 N. Summit St., Akron, engr. CD 8/2—ENR 8/28.

O., Wooster—7,736 ft. sanitary sewers, sections of Palmer, University, Wayne, Gasche and Kieffer Sts. 26,971. J. E. Fox, Wooster, engr.

O., Youngstown—Sanitary sewer and water line program if WPA funds approved, incl. water line exten. in Austintown, twp. west from Austintown center, Glenwood Ave. an exten. and Ewing Rd.; sanitary sewer Four Mile Rd. and Poland Twp., etc. $250,000. A. Coope, Youngstown, co. sanitary engr.

★**Tex., Houston**—Bond election Oct. 4, storm sewers, $1,400,000; sanitary sewers, disposal plant imprvs., $2,500,000. CD 9/3—ENR 9/11.

Tex., Kerens—Voted bonds sanitary sewerage sys. imprvs. $38,000.

Tex., New Boston—J. R. McGee, mayor, sanitary sewerage sys. imprvs. $124,750. Applied for DPW funds. Albert C. Moore & Co., SEWERS, etc. (Proposed Work, Cont'd.)

2404 Smith-Young Tower, San Antonio, engrs. CD 7/22—ENR 7/24.

†Tex., Orange—City, sewerage extens., disposal plant addns., Docket Tex. 41-196. **$148,500. DPW.** CD 8/13—ENR 8/21.

Tex., Pasadena—D. L. Atkinson, mayor, 30 ton furnace and stack incinerator plant. **$48,000. Applied for DPW funds Garrett Eng.** Co., 4504 Audubon St., Houston, engrs.

Tex., Robstown—J. Kellam, mayor, incinerator, exten. sewage disposal plant. $25,000. M. C. Erwin, city engr.

Wash., Renton—Sewage disposal plant. $50,000.

Wash., Tacoma—Preliminary studies, 17 mi. trunk sewer. Over $25,000. C. D. Forsbeck, City Hall, engr.

BIDS ASKED

Bids Asked September 22

N. Y., Kew Gardens—President Queen Boro, Boro Hall, 120-55 Queens Blvd., sewer in 147 St. from Willets Point Blvd. to 24 Ave.; sanitary sewers 118 Rd., 143 and Montauk Sts.

Bids Asked September 23

†Pa., Middletown—U. S. Eng., 332 Post Office Bldg., Baltimore, Md., sanitary sewerage addns., Middletown Air Depot; adv. ENR 9/18.

Bids Asked October 8

N. Y., New York—Dpt. P. Wks., Municipal Bldg., Contr. 4, structures and equip., Contr. 5, piping, for 26 Ward Sewage Treatment Works.

LOW BIDDERS

Calif., Lakewood Village—Directors Lakewood Village Pub. Utilities Dist., Sept. 11, 60,000 lin. ft. sewers, from A. C. Bussey, 4495 10 St., Riverside. **$63,915.** CD 9/3.

Calif., Monterey—City, Sept. 2, 1,270 lin. ft. rein.-con. box storm sewer, Figueroa St., from H. C. Geyer, 787 Munras Ave., **$44,359.** Est. $30,000. CD 8/28—ENR 9/4.

CONTRACTS AWARDED

Calif., San Pablo—Trustees San Pablo Sanitary Dist., Firehouse, constructing 6 to 15-in. vitr. clay sewers, manholes, etc., to W. J. Tobin, 5708 Glenbrook Dr., Oakland. **$52,835.** Est. $50,000. R. L. Calfee, 443 Kay Blvd., Richmond, engr. Bids 8/29. CD 7/23—ENR 7/31.

★**†N. J., Jersey City**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., sewer line exten., repairing existing sewer lines, Jersey City Terminal, New York Harbor, for approach channel dredging, to Frederick Snare Corp., 114 Liberty St., New York, **$784,620.** CD 8/20—ENR 8/28, under New Jersey.

N. J., Sterling—Passaic Twp., Twp. Hall, sanitary sewers, **WPA. $56,500.** C. Malstrom, Orange and N. 6 Sts., Newark, WPA and owner's engr. CD 8/26—ENR 8/28, under Passaic Twp.

N. C., Carthage—C. B. Shaw, mayor, sewage disposal plant, exten. sewers, **WPA. $52,843.**

Tex., Corpus Christi—Barco Development, c/o H. M. Cohen, Cohen Lbr. Co., 2310 Leeland St., Houston. Sewers, WW., etc., in Alladin Village home development, force account. **$150,000.** CD 9/8—ENR 9/11.

Tex., Houston—Storm sewers along Bway., to J. Heffernan, Jr., 3252 Charleston St. **$39,637.** CD 5/7—ENR 5/15.

Tex., Orange Grove—Sanitary sewer collecting lines, disposal plant, etc. **WPA. $65,946.**

Wis., Blair—Sewage treatment plant, sewerage sys. **WPA. $80,000.** S. P. Hall, 335 McKinley Ave., Eau Claire, engr. CD 11/1—ENR 11/7.

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

Ill., Chicago—Chicago & Northwestern Ry. Co., 400 W. Madison St., Chicago, P. F. Gault, com. atty., C. T. Dike, ch. engr., elevating plane of railway tracks and right-of-way on Wis. Div. from north line Foster Ave. to northwest city limits, constructing subways, approaches in streets now open at grade, subways, approaches to be used as public streets (not now open).

Ill., Chicago—Cook Co., County Bldg., replacing existing viaduct over tracks Chicago & Western Indiana R.R. Co., intersection of tracks with Pulaski Rd., S.A. Rt. 051, Chicago; replacing existing viaduct over tracks of Wabash Ry. Co., at existing crossing of tracks with 123 St., S.A. Rt. 180, Palos Park. G. A. Quinlan, c/o County Bldg., co. supt. hys.

Ill., North Chicago—State Dpt. P. Wks. & Bldgs., Springfield, viaduct at 22 St. over tracks Chicago & North Western Ry. Co. and Chicago North Shore & Milwaukee R.R. Co., proposed relocation of S.B. 1, Rt. 42, subway across single main track of Elgin, Joliet & Eastern Ry. Co., 1,600 ft. north of said viaduct. E. Lieberman, Centennial Bldg., Springfield, ch. state hy. engr.

N. Y., Falconer—Chautauqua Co. Hy. Dpt., 454 N. Work St., bridge reconstruction and imprvs. county-wide sys. $50,000. B. Chilson, c/o owner, supt. hys.

★**O., Akron**—$600,000 bond election in November, new bridge, imprv. existing bridges, repairing viaducts. CD 11/15—ENR 11/21.

★**O., Cleveland**—M. Evans, city dir., bond election Nov. 4, reconstructing bridge, incl. Central Viaduct, E. 152 St. and New York Central-Kinsman Rd. and Pennsylvania R. R., Fulton and Walworth Rds., Detroit Ave. and New York Central. $4,000,000. J. M. Heffelfinger, 517 City Hall, engr. CD 9/2—ENR 9/4.

Tex., Beaumont—R. Edmends, city mgr., City Hall, 385 ft., creosoted pile bridge, 45 ft. steel girder, etc. $25,800. Applied for DPW funds. J. C. Reid, city engr.

★**Tex., Houston** — Bond election Oct. 4, bridges, paving, general imprvs. $800,000.

Wash., Renton—G. Beanblossom, mayor, bridge over Cedar River, 6 Ave., and underpass under Northern Pacific Ry. tracks. Over $50,000. Seeking Federal funds.

BIDS ASKED

Bids Asked September 23

Iowa—State Hy. Comn., Ames, 150x22 ft. continuous I-beam bridge and 50x22 ft. I-beam bridge, County Trunk Rd. W, FAS 631-A(1), Clarke Co.; 3 rein.-con. box culverts, extens., County Trunk Rd. B, Dallas Co.; 192 ft. concrete arch bridge and 0.617 mi. grading U. S. 18 in Clermont, FA 863-A, Fayette Co.; 210x24 ft. continuous I-beam bridge FA 861-A, Monona Co.; 2 rein.-con. box culverts, exten., County Trunk Rd. J, FM 30-A; 180x30 ft. continuous I-beam bridge and 0.265 mi. grading, paving, FA 38-BCD(2), both Plymouth Co.; 150x22 ft. continuous I-beam bridge County Rd. T, FAS 728-A(1), Van Buren Co. F. R. White, Ames, engr.

LOW BIDDERS

California—C. H. Purcell, engr. State Hy. Dpt., Sacramento, Sept. 10, removing and salvaging 2 bridges over Eel River, Robinson Ferry and North Scotia, Humboldt Co. and constructing bridge over Salmon River, Siskiyou Co., from C. W. Calletti & Co., 28 Francisco Bldg., San Rafael. **$74,259.** CD 8/26—ENR 8/28.

Calif., Los Angeles—State Hy. Dpt., 808 State Bldg Sept. 4, steel, rein.—con. superstructure bridge over Los Angeles River, Figueroa St., from Bethlehem Steel Co., E. Slauson Ave., Vernon. **$268,804.** est. $300,000. CD 8/19—ENR 8/21.

Calif., Nicolaus—State Engineer, Sacramento, Sept. 3, rein.-con. girder spans as repairs to existing bridge, Feather River, from A. Soda & Son, 5231 Grove St., Oakland, **$174,252.** CD 8/28—ENR 8/28.

Illinois—State Dpt. P. Wks. & Bldgs., Div. Hys., Springfield, Sept. 12, substructure Rock River Bridge, Rt. 2, Sect. 39R-B, Lee and Ogle Counties, from Shappert Eng. Co., 112 W. Pleasant St., Belvidere, **$86,956*****two I-beam bridges, culvert, etc. over Cotton Creek and S. Fork Creek, DA Rt. 15, Sect. 26 B, Christian Co., from Zimmerly Constr. Co., 321 E. Edgar St., Paris, **$40,836.** CD 9/3.

Kentucky — Dpt. Hy., Frankfort, Sept. 5, 0.119 mi. overhead bridge, Hardin Co. from Ruby Lumber Co., Madisonville. **$189,532.** CD 8/15—ENR 8/21.

Me., Fairfield—State Hy. Comn., L. D. Barrows, ch. engr., Augusta, Aug. 6, Wyman Crossing under tracks of Maine Central R.R., from Briggs & Grencl Constr. Co., 40 E. 41 St., New York, N. Y., **$203,975. (Correction—contractor's address).** CD 8/12—ENR 8/14.

Maryland—State Rd. Comn., Baltimore, rein.-con. substructure bridge over Potomac River, connecting Washington Co., Md., and Loudon Co., Va., at Sandy Hook, Md., from James McGraw Co., Commercial Trust Bldg., Phila., Pa. **$270,625.** CD 8/26—ENR 8/28.

†Mississippi—Pub. Roads Admin., 219 Old Post Office Bldg., Vicksburg, Aug. 28, rein.-con. bridge, approaches, Natchez Trace Parkway, Leake Co., from F. S. Neeley, Weir, **$44,685.** CD 8/11—ENR 8/14.

Missouri—State Hy. Com., Jefferson City, Sept. 5, bridge, Christian Co., from Neyer Constr. Co., Billings, **$28,652*****Bridge, Boone and Howard Counties, from O'Dell & Riney Constr. Co., Hannibal, **$70,367.** CD 8/21—ENR 8/28.

Ohio—State Hy. Dpt., Columbus, Sept. 9, continuous steel beam hy. bridge overhead structure, 1.142 mi. Pennsylvania R.R. grade crossing elimination proj.; continuous steel beam bridge, concrete deck substructure over Red Bank Rd., and Duck Creek, grading, drainage structures, rein.-con. paving, Sect. Erie Ave., Brotherton Rd., relocation, in Cincinnati, Hamilton Co., from Visintine & Co., W. Fifth Ave. and Delashment St., Columbus. **$459,077.** Est. $460,780. CD 8/28—ENR 9/4.

Pennsylvania—At office I. L. Hughes, secy. State Hy. Dpt., Harrisburg, Sept. 12, overpass bridge, Legislative Route 171, Sect. 4-A, Traffic Route 90, Wayne Co., from Trimpey Bros., Middleburg. **$290,375.** CD 8/27—ENR 9/4.

★**†Pa., Phila.**—Pub. Wks. Offi[illegible] Sept. 12, steel truss bridge Navy Yard [illegible] Channel 20 St., from Phoenix Bridge Co., [illegible]nixville. **$1,165,000.**

CONTRACTS AWARDED

Calif., Boulder Creek—Supervs. [illegible]nta Cruz Co., Santa Cruz, bridge over [illegible] Lorenzo River, to Cardwell Constr. Co., [illegible]9 Pacific Ave., Santa Cruz. **$29,090.** B[illegible] 9/8. CD 9/3.

Conn., Lyme—New York, New Haven & Hartford R.R. Co., E. E. Oviatt, ch. engr., New Haven, steel truss railroad bridge over Lieutenant River, to C. W. Blakes[illegible] & Sons, Inc., 58 Waverly St., New Haven. **$100,000.**

Iowa—State Hy. Comn., Ames, concrete rigid frame bridge, imprv. 0.16[illegible] mi. hy. Buchanan Co., to C. Elliott, Independence. **$32,043.** Bids 8/26. CD 9/2—ENR 9/4 under LB.

Ia., Dubuque—Dubuque Co., 2 bridges, to Fisko, Costigan & Garber. **$25,000.**

R. I., Lincoln—State, Div. Purchases, State House, Providence, Bridge 276, Louisquisset Pike, FAP SN 17-B(5), to M. A. Gammino Constr. Co., 728 Valley St., Providence, **$117,775.** Bids 8/13. CD 8/6—ENR 8/14.

Tex., Dallas—Dallas Co., c/o Judge, reconstructing, constructing bridge, fences, drainage **WPA. $104,253.**

STREETS AND ROADS

BIDS ASKED

Bids Asked September 23

Iowa—State Hy. Comn., Ames, grading 5.154 mi. Co. Trunk Rd. W, FAS 631-A(1) and 3.815 mi. Co. Trunk Rd. B, FSN-823, both Clarke Co.; 4.373 mi. Co. Trunk Rd. B, FAS 331-A (1) Dallas Co.; 13.06 mi. Iowa Rd. 333, FA 865-A (1) Fremont Co.; 0.994 mi. local road, FSN-718, Humboldt and Pocahontas Counties; 5.042 mi. Co. Trunk Rd. A, FSN-423-B, Monroe Co.; 8.242 mi. Co. Trunk Rd. J, FM 30-A Plymouth Co.; 8.916 mi. Co. Trunk Rd. N FSN 786; 4.918 mi. Co. Trunk Rd. C, FSN 787 both Pottawattamie Co.; surfacing 0.994 mi. local road, FSN 718, Humboldt and Pocahontas Counties; surfacing in Sharpsburg, FSN 700 N; 4 mi. Co. Trunk Rd. H, FSN 486; and 3 mi. Co. Rd. J, all Taylor Co.; 3.051 mi. Co. Trunk Rd. W, FSN 416, Muscatine Co. F. R. White, Ames, engr.

N. J., Hopewell Twp.—Municipal Bldg., Hart's Corner, penetration macadam on macadam surfacing 3,555 sq. yd. Moore's Station-Ackor's Corner Rd. Sect. 4. B. F. Stratton, Broad St. Bank Bldg., Trenton, engr.

N. Y., Brooklyn—Triborough Bridge Auth., Administration Bldg., Randall's Island, Brooklyn elevated parkway, grading, path paving incidental park work from Ridge Blvd. to 4 Ave. Contr. Mo. B-30. Madigan-Hyland, 28-04 41 Ave., Long Island City, consult. engrs.

N. J., Irvington—New street from Clinton Ave. to Tremont St. I. J. Casey, Jr., Town Hall, engr.

★**Virginia**—State Dpt. Hys., Richmond, concrete paving 0.3 mi. Route 1, Stafford Co.; 1.2 mi. Route 17, Norfolk Co.; waterbound macadam paving 1 mi. Route 90, Wythe Co.; 7 mi. Route 29, Pittsylvania Co.; 1.2 mi. Route 250, Tazewell Co.; 4.6 mi. Route 58, Mecklenburg Co.; 9 mi. Route 50, Frederick and Clarke Counties; grading, draining, bridges on 1.5 mi. Route 60, Allegheny Co.; asphaltic concrete paving 5.2 mi. Route 33, Staunton Co.; 5 mi. Route 7, Staunton Co., 2.5 mi. Route 7, Culpeper Co.; 2.5 mi. Route 11, Salem Co.; 4 bridges, approaches, 1.3 mi. Route 360, Hanover and Henrico Counties, 381 ft. bridge, approaches, Route 46, Brunswick and Nottoway Counties; bridge, Route 11, Roanoke Co. $1,400,000.

West Virginia—State Road Comn., Charleston, grading, draining, macadam base, surface treating 2.25 mi. Route 63, Ronceverte-Fort Spring Rd., S.P. 3595-A, Greenbrier Co.; Type F-1, hot mix asphaltic concrete on macadam surfacing 5.4 mi. Route 17, Henderson-Couch Rd., S.P. 3138, Mason Co.; Webster overhead bridge approaches, bridge, grading, asphaltic concrete on macadam surfacing, concrete arch bridge, 0.936 mi. Strategic Network FA P SNFA 204-A(3) U. S. 119 and U. S. 250 Routes grade cross, proj. SNFAGH 204-E(1), Taylor Co.

Bids Asked September 24

Kansas—State Hy. Dpt., Yates Center, grading, concrete paving 0.903 mi. FA 65; surfacing 3 mi. FA 65; grading, concrete paving 1.116 mi. FAGH, all foregoing Allen Co.; 2.921 mi. FAGH 367 D; two 10x10x40 ft. rein.-con. box culverts, FAGH 367 D, both Woodson Co. R. B. Mills, Topeka, engr.

N. Y., Kew Gardens — President Queens Boro, Queens Boro Hall, 120-55 Queens Blvd., grading, curbing, walks, drainage facilities, sheet asphalt and granite block on 8 in. concrete paving, etc., Francis Lewis Blvd. and Epsom Course.

Rhode Island—State and Providence Plantations, Dpt. Finance, Div. Purchases, rein.-con. bituminous macadam paving 2.537 mi. Contr. 4112, FAP SN-FAP 23 (3), Exeter and Richmond, Washington Co.; landscaing 0.451 mi. Contr. 4111, FAP 33 (3) Narragansett, Washington Co.; penetration bituminous macadam paving, stone bridge approaches 0.291 mi. Contr. 4113, FAP 21-C(1), Tiverton, Portsmouth, Newport Co.; landscaping 1.458 mi. Contr. 4115, FAS 115 (3) Exeter, Washington Co.

Bids Asked September 26

Kansas—State Hy. Dpt., Garden City, grading, concrete paving, 0.92 mi., FA 22 A, Finney Co. R. B. Wills, engr.

Minnesota—State Hy. Dpt., St. Paul, subgrade corrections 8.5 mi. D 11, SP 6224, AFE 45 (T.H. 96); 9.96 mi. D 11, SP 8211, AFE 46 (T.H. 96); 0.3 mi. D 11, SP 1307, AFE 47 (T.H. 95); 7.24 mi. D 11, SP 8204, AFE 48 (T.H. 36); 4.46 mi. D 11, SP 1902, AFE 49 (T.H. 13). J. T. Ellison, St. Paul, ch. engr.

Pennsylvania—State Hy. Dpt., Harrisburg, rein.-con. paving, reconstructed base with bituminous surfacing, drainage 1,396 ft. Legislative Route 02204, Spur E, Sect. 1, North Fyatte Twp., Allegheny Co.; native stone type B or crushed aggregate base with bituminous surfacing, rein.-con. viaduct, grading 5,997 ft. Legislative Route 03087, Sect. 1, Traffic Route 839, Wayne and Redbank Twps., Armstrong Co.; rein.-con. paving, exten. existing structure, constructing rein.-con. arch, 2 rein.-con. bridges, bituminous on crushed aggregate surfacing, grading, drainage 15,779 ft. Legislative Route 201, Sect. 2, Traffic Route 83, East Vincent and East Coventry Twps., Chester Co.; rein.-con. paving, bituminous on crushed aggregate surfacing, 20,110 ft. Legislative Route 271, Sect. 4, Traffic Route 8, Rome, Steuben and Athens Twps., Centerville Boro, Crawford Co.; rein.-con. paving 1,460 ft. Legislative Route 48008, Easton, Northampton Co.; rein.-con. paving, rein.-con. slab bridge, rein.-con. bridge, bituminous on native stone, Type B or crushed aggregate surfacing 23,359 ft. Legislative Route 141, Sect. 5-A, Traffic Route 122, West Brunswick Twp., Deer Lake Boro, Schuylkill Co.; rein.-con. paving 1,599 ft. Legislative Route 119-13, Traffic Route 30, Greensburg, Westmoreland Co.; rein.-con. paving, rein.-con. bridge, exten. wings, placing new superstructure, bituminous on native stone Type B or crushed aggregate surfacing 14,698 ft. Legislative Route 9, Sect. 14, Traffic Route 11, Clinton Twp., Factoryville Boro, Wyoming Co. T. C. Frame, c/o owner, ch. engr.

Pa., Mercer—Boro Council, bituminous materials paving Sheriff, Findly, Cunningham, Grant and Venango Sts. $25,000.

†Utah, Salt Lake City—U. S. Eng., 751 South Figueroa St., Los Angeles, Calif., street imprvs., Salt Lake Military Airport. Over $25,000.

Bids Asked September 29

Calif., Stockton—City Clerk, grading, concrete curbing, gutters, sidewalks, road gravel and asphaltic concrete paving. $25,000.

Tex., Refugio—Refugio Co., c/o T. G. Jeter, judge, grading, flexible base and single asphalt surface course paving 15.429 mi. road Precinct 4, Road Dist. 6. $55,000. P. G. Young, Refugio, engr.

Bids Asked September 30

Ill., Mason—Whiteside Co., grading, gravel or crushed stone surfacing, culverts, etc. 2.5189 mi. Sect. 12-MFT. G. H. Baker, Centennial Bldg., Springfield, state eng. co. roads and city streets.

Kansas—State Hy. Dpt., Alma, resurfacing material 3.79 mi. K 1551 and 1552 AB, Wabaunsee Co. R. B. Wills, engr.

Kansas—State Hy. Comn., Concordia, resurfacing material 4 mi. K 2882, Marion Co.; 6 mi. K 2507-2508 A B, Washington Co.; 2.057 mi. K 2506 A B, Morris Co.; 28.072 mi. K 2505; 10.004 mi. K 2504, both Mitchell Co.; 9.447 mi. K 2503, and 6 mi. K 2502, Jewell Co.; 10.142 mi. K 2795, Clay Co.; 3.79 mi. K 1551 and 1552, A B, Wabaunsee Co.; 18.232 mi. K 2796, Cloud Co.; 15.253 mi. K 2797 and 2798, Dickinson Co.; 2.550 mi. K 2799, Ellsworth Co.; 8 mi. K 2501, and 2.5 mi. K 2500, Geary Co.; grading 2.256 mi. FA 185 D, and 2.876 mi. FA 185 B, Cloud Co.; 7.1 mi. FA 377 E, Dickinson Co.; concrete paving 2.876 mi. FA 185 B and 2.256 mi. FA 185 D, Cloud Co.; surfacing for detour 7 mi. FA 377 E, Dickinson Co.; widening 3 twenty foot R. C. slab spans from 20 to 24 ft. roadway, Bridge 25.6, Dickinson Co. R. B. Wills, engr.

Wisconsin—State Hy. Comn., Madison, grading, draining, concrete surfacing 1.094 mi. State Trunk Hy. 62, Contr. 1, South Milwaukee-Milwaukee Rd., Grange Ave.-Plankinton Ave. Sect., S.P. 2624-B, Milwaukee Co.; 0.751 mi. Green Bay-Oconte-Marinette Rd., Suamico Relocation, S.P. 3756, U. S. Hys. 41 and 141, Brown Co.; 0.142 mi. Turtle Creek Bridge and approaches, E. Grand Ave., Beloit, S.P. 11735, Contr. 1, Rock Co.; grading, draining 9.223 mi. Wisconsin Dells-Portage Rd., FAP 489-A(1), U. S. Hy. 16 Columbia Co.; 3.759 mi. Viroqua-Viola Rd., S.P. 5690, State Trunk Hy. 56, Vernon Co.; 11.626 mi. Ladysmith-Prentice Rd., Glen Flora-Hawkins Rd., FAPs. 371-E(3), 91(2) and 371-A(2), U. S. Hy. 8, Rusk and Price Counties; grading, draining, gravel traffic bound surface course 3.448 mi. Blair-Merrilian Rd., Alma Center-Merrilian Rd., FAP 755-C(1), State Trunk Hy. 95, Contr. 1, Jackson Co.; grading, draining, gravel surfacing 0.744 mi. Cameron-Ladysmith Rd., Cameron-Weyerhauser Rd., FAP 119(2) and 372-A(2) U. S. Hy. 8, Contr. 1, Barron Co.; 2,011 mi. Prentice-Park Falls-Mellen-Ashland Rd., South County Line-Butternut Rd., FAP 405-B(2), State Trunk Hy. 13, Ashland Co.; 4.067 mi. Frederick-Grantsburg Rd., Grantsburg-East County Line Rd., S.P. 8712, State Trunk Hy. 48, Burnett Co.; grading, draining, graded aggregate surfacing 9.007 mi. Prairie du Chien-La Crosse Rd., Lynxville-DeSoto Sect., FAP 483-A(1), State Trunk Hy. 35, Crawford Co.; Bridge 840, 170 ft. 3 span, rein.-con. deck girder, Bridge 741, 115 ft. 2 span rein.-con. deck girder, Stevens Point-Wausau Rd., Stevens Point-North Co. line and South Co. line-Knowlton Rd., S.P. 4856 and 4652, U. S. Hy. 51, Contr. 1, Portage and Marathon Counties; graded aggregate base course surfacing 5.0455 mi. New Richmond-Bloomer Rd., FAP 758-C(1) U. S. Hy. 63, St. Croix Co.; gravel traffic bound base course surfacing, 11.626 mi. Ladysmith-Prentice Rd., Glen Flora-Hawkins Rd., FA Projects 371-E(2) 91(2) and 371-A(2), U. S. Hy. 8, Rusk and Price Counties; Bridge 658, 3 span concrete, steel superstructure on timber abutments, Lake Tomahawk-Woodruff Rd., S.P. 6-7136, State Trunk Hy. Contr. 2, Oneida Co.

Bids Asked October 1

California—C. H. Purcell, Engr. State Hy. Dpt., Sacramento, grading 0.25 mi. hy. Humboldt Co.

Louisiana—Dpt. Hys., Baton Rouge, bituminous surface treating 1.098 mi. Ville Platte-North Hy., Routes 224 and 570, S.P. 913-04-14, Evangeline Parish.

Bids Asked October 3

New Jersey — State Hy. Dpt., E. Donald Sterner, hy. comr., Trenton, roadside imprv., 5.148 mi. Rt. 4, Relocation Sect. 41A, Monmouth and Middlesex Counties; adv. ENR 9/18.

Bids Asked October 7

Mo., St. Louis—City, c/o C. H. Ellaby, pres. Bd. P. Serv., 304 City Hall, grading, concrete paving alleys, in City Blocks 1452B, 2941, 5390, 5705, 5967, 6006, 6114 and 6301. $30,793.

Bids Asked March 10

†Arizona—Pub. Roads Admin., San Francisco, Calif., bituminous treated base course on 15.037 mi. Flagstaff-Clints Well Natl. Forest Hy., Coconino Natl. Forest, Coconico Co.

Bids Asked

California—C. H. Purcell, engr. State Hy. Dpt., Sacramento, rejected bids July 16, imprv. 8.5 mi. hy. Mono Co. CD 7/23—ENR 7/31, under LB.

Calif., Berkeley—Grading, macadam paving, vitr. sewers, etc. University Gardens. $25,000 or more.

Calif., Richmond—Plantmix surfacing 1.016 mi. 23 St.

Calif., Sacramento—Supervs. Sacramento Co., rock shoulders and liquid asphalt SC-1 surfacing 2 mi. Swanston and Marysville Rds.; sealcoat surfacing 12 mi. California Vineyard Rd., etc.; shaping, compacting, SC-1 liquid asphalt surfacing 6.75 mi. Watt Ave., etc.

Ill., Lincoln—City postponed receiving bids to have been opened Sept. 15, imprv. 0.3735 mi. Sec. 12-CS. G. H. Baker, Centennial Bldg., Springfield, state engr. co roads and city streets. CD 9/9—ENR 8/28.

Maryland—State Roads Comn., Baltimore, rejected bids July 15, imprv. 1.738 mi. Contr. Q-154-1-250, Queen Anne Co. CD 7/18—ENR 7/24, under LB.

Tennessee—State Hy. Dpt., Nashville, rejected bids Aug. 29, imprv. 6.494 mi. Hamilton Co.; 4.723 mi. Rutherford Co.; 3.33 mi. Knox Co.; bridge, approaches Campbell Co. CD 9/4—ENR 9/11, under LB.

LOW BIDDERS

California—C. H. Purcell, engr. State Hy. Dpt., P. Wks. Bldg., Sacramento, Sept. 3, imprv. 6.3 mi. Mendocino Co., from Macco Constr. Co., 815 Paramount Blvd., Clearwater, **$251,217.** CD 8/18—ENR 8/21.

California—C. H. Purcell, engr., State Hy. Dpt., Sacramento, Sept. 10, imprv. 0.2 mi. Mendocino Co., from H. Smith, 1427 Kearney St., St. Helena, **$26,426*****0.8 mi. Kern Co., from Griffith Co., L. A. Railway Bldg., Los Angeles, **$69,969** (alt. A or B)***1.2 mi. Fresno Co., from Harms Bros., Rt. 4, Box 2220, Sacramento, alt. A **$62,193.** CD 9/3.

Colorado—State Hy. Dpt., Denver, Sept. 3, imprv. 5.037 mi. San Juan Co., from Lowdermilk Bros., 140 S. Elati St., Denver, **$271,584.** CD 8/28.

Florida—State Road Dpt., Tallahassee, Sept. 4, imprv. 13 mi. road, Levy Co., from Duval Eng. & Constr. Co., foot of E. Adams St., Jacksonville, **$357,221.** CD 8/28.

Illinois—State Dpt. P. Wks. & Bldgs., Div. Hys., Springfield, Sept. 12, imprv. 0.91 mi. Monroe Co., from Keeley Bros. Cont. Co., 4211 State St., East St. Louis, **$56,334*****0.59 mi. Richland and Clay Counties, from C. J. Moritz, Inc., Effingham, **$38,508*****2.52 mi. Sangamon Co., from Hurden Constr. Co., 614 Reisch Bldg., Springfield, **$26,238.** CD 9/10.

Ill., Chicago—Cook Co., Sept. 3, from Thos. McQueen Co., 1313 Circle St., Forest Park, imprv. 13,834 sq. yd. Sect. 162-1313-2 MFT **$70,450*****from Reschke Constr. Co., 706 Green Bay Rd., Winnetka, 18,563 sq. yd. Sect. 117-2324.1-MFT **$64,026;** 12,879 sq. yd. Sect. 111-0606-MFT **$38,838;** 23,277 sq. yd. Sect. 111-0405-MFT **$64,430;** 16.847 sq. yd. Sect. 110-1920 MFT **$54,551*****from Chatham Paving Co., 8050 Wabash Ave., 33,061 sq. yd. Sect. 195-0102-MFT **$122,594;** 12,550 sq. yd. Sect. 175-2121-MFT **$62,966.** CD 8/25.

Ill., Chicago—City, Aug. 28, imprv. 1.1822 mi. W. Belmont Ave., Sect. 0708-CS, from Standard Paving Co., 30 N. La Salle St. **$136,076.** CD 8/25.

Ill., Oak Park—Village, Sept. 2, imprv. 45,-763 sq. yd. street, Sect. 35 (read.) from G. H. Goelitz, 106 N. Blvd., Oak Park. **$125,933.** CD 8/25.

Iowa—State Hy. Comn., Ames, Sept. 9, imprv. 6.328 mi. Clay Co., from Booth & Olson, Inc., 622 Ins. Exch. Bldg., Sioux City, **$31,885;** 6.328 mi. Clay Co., from J. S. McLaughlin & Sons, 710 Walnut Bldg., Des Moines, **$137,166.** CD 9/2—ENR 9/4.

Kentucky—Dpt. Hy., Frankfort, Sept. 5, imprv. 5.705 mi. Boone Co., from H. K. Williams, 1376 S. 7 St., Louisville, **$42,691*****3.391 mi. Floyd Co., from R. E. Mills Co., Frankfort, **$77,329*****9.776 mi. Russell Co., from McLellan & Campbell, Bowling Green, **$214,374.** CD 8/15—ENR 8/21.

Louisiana—Dpt. Hys., Baton Rouge, Sept. 10, 18 in. bituminous surfacing treatment, 5.76 mi. Homer-Antioch Hy., Claiborne Parish, from R. N. Lilly, Baton Rouge. **$64,558.** CD 8/20—ENR 8/28.

Maryland—State Rd. Comn., Baltimore, Sept. 9, grading, concrete surfacing, 1 mi. Salisbury By-Pass, Wicomico Co., from Phillips Bros., Salisbury. **$127,610.** CD 9/2—ENR 9/4.

Md., Baltimore—Bd. Awards, City Hall, Sept. 3, imprv. streets, Contr. CC 752, from Arundel Constr. Co., 910 Trinity St. **$47,579.** CD 8/27.

Minnesota—State Hy. Dpt., St. Paul, Aug. 29, imprv. D 2, S.P. 1604 (Trunk Hy. 61) and 7.3 mi. D. 2, S.P. 3803-03 (TH 1), from Itasca Contg. Co., Grand Rapids, and Ashworth-Hawkinson Co., St. Louis Park, **$32,830** and **$26,832** respectively***10.2 mi. D 2, S.P. 3803 (TH 1), from Whitmas & Borg, Bovey, **$119,999.** CD 8/12—ENR 8/14.

Minnesota—State Hy. Dpt., Sept. 5, imprv. 1.8 mi. S.P. 2306-7, from Morse Bros., Rochester, **$58,096*****6.5 mi. S.P. 4108-03, from W. H. Noel, Jamestown, N. D., **$76,021*****3.5 mi. S.P. 4707-02, from Megarry Bros., St. Cloud, **$42,388*****7 mi. S.P. 5622-03, from Anderson Bros., Thief River Falls, **$45,891*****0.3 mi. S.P. 2404-03, from Anderson & Son, 100 N. 7 St., Minneapolis, **$35,926*****3.4 mi. S.P. 4002-14, from J. Roth Constr. Co., 350 West Idaho St., St. Paul, **$30,604.** CD 8/20—ENR 8/28.

Minn., Faribault—Rice Co., Sept. 5, imprv. 2.6 mi. 66-503-01, from Ganley, Livall & Scott, 2336 Hampden Ave., St. Paul. **$27,056.** CD 8/20—ENR 8/23, under Minnesota.

★**Missouri**—State Hy. Comn., Jefferson City, Sept. 5, imprv. 1.038 mi. Pulaski Co., from F. Weber, Jr., 4034 Bates St., St. Louis, **$244,889*****0.998 mi. Perry Co., from R. B. Potashnick, Cape Girardeau, **$66,868** *** 4.113 mi. Harrison Co., from Concrete Materials & Constr. Co., Cedar Rapids, Ia., **$75,473.** CD 8/20—ENR 8/28.

Ohio—State Hy. Dpt., Columbus, O., Sept. 9, imprv. 5.35 mi. Ottawa Co., from Launder & Son, Inc., Glendale Ave and Terminal R.R., Toledo. **$348,000.** Est. $350,000. CD 8/28—ENR 9/4.

★**Pennsylvania**—State Hy. Dpt., Harrisburg, Sept. 12, imprv. 4,024 ft. Delaware Co., from Union Paving Co., 1227 N. Broad St., Phila., **$68,281*****3,536 ft. Allegheny Co., from Allegheny Asphalt & Paving Co., 411 Blvd. of the Allies, Pittsburgh, **$37,882*****24,913 ft. Cameron Co., from Putman & Greene, Inc., 206 Transfer St., Fort Wayne, Ind., **$227,373** ***4,575 ft. Fayette Co., from Meade Constr. Co., 6101 Penn Ave., Pittsburgh, **$140,145*****9,560 ft. Lancaster Co., from Jos Banks Constr. Co., Central Bldg., Wilkes-Barre, **$180,955*****23,795 ft. Wayne Co., from Rosser Constr. Co., P. O. Box 325, Wilkes-Barre, **$120,518*****14,268 ft. Bradford Co., from A. B. Cole, Meshoppen, **$160,745.** CD 8/25 and 8/27—ENR 8/28 and 9/4.

★**Pennsylvania**—State Hy. Dpt., T. C. Frame, ch. engr., Harrisburg, Sept. 12, paving 50,897 ft., 8 rein.-con. arches, 3 rein.-con. bridges, Butler Co., from Ralph Myers Constr. Co., Salem, Ind., **$1,115,958;** imprv. 55,060 ft. Venango and Clarion Counties, from Baldwin Brothers Paving Co., 652 Union Commerce Bldg., Cleveland, O., **$664,140.** CD 8/25—ENR 8/28.

Pa., Pittsburgh—Regrading, repaving, etc., Smallman St., from R. O. Thomas, 337 Tioga St. **$28,997.**

Tex., Houston—Harris Co., c/o H. L. Washburn, aud., imprv. 0.93 mi. road from La Porte Rd. to Ship channel, from Brown & Root, Inc., 4300 Calhoun St. **$67,999.** H. Zapp, Houston, co. engr.

★**Virginia**—Dpt. Hys., Richmond, Sept. 9, imprv. 2.3 mi. Pittsylvania Co., from F. D. Cline, Box 349, Raleigh, N. C., **$188,863*****0.4 mi. Fauquier Co., from Blackwell Eng. & Constr. Co., Warrenton, **$49,453*****4.1 mi. Fairfax Co., from W. N. Jackson, Box 1408, Roanoke, **$164,643*****2.7 mi. Pittsylvania Co., from E. C. Bramhan Constr. Co. and G. H. Lewis

STREETS, etc. (Low Bidders, Cont'd.)

& Son, Halifax, **$89,332*****7.6 mi. Charlotte Co., from Highway Contractors, Inc., 420 Boush St., Norfolk, **$32,093.** CD 8/28—ENR 9/4.

†Washington—Pub. Roads Admin., Post Office Bldg., Portland, Ore., Sept. 10, clearing, grading South Fork Stillaguamish Hy., Mount Baker National Forest, Snohomish Co., from A. Osberg, 502 N. 62 St., Seattle. **$88,691.** CD 9/4.

CONTRACTS AWARDED

Ark., Malvern—J. Kight, judge Hot Spring Co., imprv. roads, **WPA. $157,506.**

California—C. H. Purcell, engr. State Hy. Dpt., Sacramento, constructing base material on shoulders between San Lucas and Soledad, Monterey Co., to Granite Constr. Co., Bin 9, Watsonville. **$45,920.**

Calif., San Leandro—Imprv. portion Bancroft Way, to U. B. Lee, 1159 Estudillo Ave., **$28,298.** Bids 8/29. CD 8/25.

★**†Fla., Camp Blanding (Starke)**—Con. Q. M., reshaping bases and surface treating roads, roadside and drainage ditches, embankments, shoulders, slopes, pipe culverts, to H. E. Wolfe Constr. Co., Inc., St. Orlando, Augustine and L. B. McLeod Constr. Co., **$828,535.**

Idaho, Boise—Repaving 25 blocks, to Morrison-Knudsen Co., 319 Broadway, Boise, **$33,000.**

Ill., Morrison—Whiteside Co., Morrison, grading 7½ mi. road, east of Tampico and blacktop surfacing 2.6 mi. road west of Prophetstown, to Valley Eng. Co., St. Charles. **$42,800.**

Ia., Dubuque—Dubuque Co., grading 6 mi. road to J. P. Hurley, Epworth. **$25,000.**

Ia., Maquoketa—Jackson Co., road grading, to E. M. Dusenberg, Inc., Clear Lake. **$46,908.** Bids 9/5. C. C. Bowman, Maquoketa, co. engr.

Kansas—State Hy. Dpt., Wakeeney, improv. 7.979 mi. Trego Co., to Cook & Ransom, Ottawa, **$36,657.** Bids 8/29, awarded 9/3.

†La., Camp Beauregard—Con. Q. M., streets, driveways, Recreation center and imprv. 6 St., etc., Warehouse area, to Barber Bros. Constr. Co., Reymond Bldg., Baton Rouge. **$38,400.**

†Me., Houlton—U. S. Eng., Park Sq. Bldg., Boston, Mass., roads, drainage sys., water, sewer and electric utilities, Army Air Base, to Carlo Bianchi & Co., Inc., 24 Union Ave., Framingham, Mass., **$447,209.**

Massachusetts — Commonwealth of Massachusetts, Dpt. P. Wks., H. L. MacDonald, comr., Boston, imprv. 29,540 sq. yd. hy. Northampton St., Holyoke, to Lane Constr. Corp., 35 Colony St., Meriden, Conn., **$56,641.** Bids 9/2. CD 8/29.

Mass., Brookline (br. Boston)—Town, Bd. Selectmen, Town Hall, bituminous reconstructing part Beacon St., to Warren Bros. Roads Co., 38 Memorial Dr., Cambridge, **$34,403.**

★**†Mississippi**—Pub. Roads Admin., 219 Old Post Office Bldg., Vicksburg, grading, draining, structures, Natchez Trace Parkway, Attala and Leake Counties, Project 3Mi, to F. S. Neeley, Amory, **$538,252.** Bids 8/7, awarded 9/4. CD 8/13—ENR 8/21.

†Miss., Camp Shelby—Con. Q.M., sidewalks, to Shuptrine Constr. Co., Hattiesburg. **$285,000.**

†N. J., Fort Dix—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., grading, 4 in. penetration macadam on gravel surfacing roads, **WPA. $60,000.**

†N. J., Fort Hancock (Highlands)—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., grading, paving, imprv. roads, **WPA. $61,000.**

N. Y., Albion—Hy. Dpt. Orleans Co., reconstructing hys., near here, own forces. **$35,000.** H. D. Waldo, c/o owners, supt.

N. Y., Jamestown—Dpt. P. Wks., City Hall, resurfacing, widening E. 2 St., own forces. **$25,500.** C. J. Strandburg, city engr.

North Carolina—State & P. Wks. Comn., Raleigh, C. Melichor, supt. Forests, Franklin, imprv. roads Nantahala Natl. Forest. **WPA. $100,000.** W. V. Baise, Raleigh, engr. Awarded 9/6.

North Dakota—State Hy. Dpt., Bismarck, imprv. 9.164 mi. U.S. Hy. 85, Belfield, South, to Bismarck Constr. Co., **Bismarck. $60,725.** Bids 8/22, awarded 9/9. Received no bids Aug. 22, bituminous sealcoat 11.922 mi. FAP 166(8) and 110(3), Walsh and Grand Forks Counties. CD 8/28—ENR 9/4.

North Dakota—State Hy. Dpt., Bismarck, roadside imprv. 5.9 mi. U.S. Hy. 81, State Hy. 13, to J. Coghlan, Rolla, **$39,407;** regrading, incidental road imprv. 16.4 mi. U.S. Hy. 83 and Underwood northwesterly, to Bismarck Constr. Co., Bismarck. **$99,140.** Bids 9/12.

★**Ohio**—State Hy. Dpt., Columbus, imprv. 2.748 mi. Wyandot Co., to U. S. Constr. Co., Upper Sandusky, **$36,507** est. $36,850 ***26.52 mi. Cuyahoga Co., to Allied Corp., 714 Keith Bldg., Cleveland, **$32,497** est. $32,729***3.385 mi. Medina Co., to Ohio Road Impvt. Co., Chamber of Commerce Bldg., Columbus, **$38,486** est. $45,800 *** 2.982 mi. Jefferson Co., to Tri-State Asphalt Corp., South Bway., Martins Ferry, **$29,584** est. $29,600***3.199 mi. Defiance Co., to C. J. Wetzel, 126 Otterbein Ave., Dayton, **$53,083** est. $53,850***4.679 mi. Ashland and Wayne Counties, to A. J. Baltes, 191 Benedict Ave., Norwalk, **$365,088** est. $380,000. Grand total $555,195. Bids 9/9. Received no bids Sept. 9, imprv. 0.027 mi. Cuyahoga Co.; 1.035 mi. Sandusky and Seneca Counties; 3.091 mi. Mahoning Co.; 43.51 mi. Erie and Huron Counties. Cancelled bids to have been opened Sept. 9, imprv. 0.075 mi. Vinton Co. CD 8/28—ENR 9/4.

O., Bellaire—Imprv. streets, **WPA. $150,000.** J. P. Dean, city engr.

Pennsylvania—State Hy. Dpt., Harrisburg, imprv. 9.52 mi. Clearfield, Indiana, Lackawanna and Luzerne Counties, Penna. State Work Relief Program. **$166,700.** Awarded 9/11. H. R. Davidson, North Office Bldg., Harrisburg, administrator.

Pa., Forty Fort—Boro Council, C. Evans, boro secy., L. R. Grisman, boro solicitor, concrete curbs, sidewalks, **WPA. $52,000.**

Pa., Pittsburgh—Regrading, repaving, recurbing, widening Stockton Ave., to M. O'Herron, 48 S. 18 St. **$57,259.**

Pa., Scranton—Lackawanna Co., walks, roads, Glacial Park own forces. **$25,000.**

Pa., Swissvale—Boro, B. J. Caldwell, clk., imprv. streets, to McCrady Constr. Co., 239 4 Ave., Pittsburgh. **$43,940.** Bids 8/12. CD 8/5—ENR 8/7.

†S. D., Fort Meade — Con. Q.M., military reservation road. **WPA. $50,000.**

Tennessee—State Hy. Dpt., Nashville, imprv. 6.373 mi. Rutherford Co., to R. E. Martin, Nashville, **$207,122.** Bids 8/29. CD 9/4—ENR 9/11, under LB.

Tex., Austin—Street imprvs., widening, rock retaining walls, concrete curbs, gutters, storm sewers. **WPA. $115,010.** J. Montgomery, c/o Littlefield Bldg., consult. engr.

Tex., Center—Shelby Co., c/o Judge, 7 mi. farm-to-market road imprv. **WPA. $57,062.**

Tex., Garland—Dallas Co., c/o Judge, Dallas, developing, hard paving wide road, vicinity Southern Aircraft Corp. **WPA. $75,642.**

Tex., Jacksonville—Cherokee Co., c/o Judge imprv. 7½ mi. road. **WPA. $85,595.**

Tex., Smithville — Paving, imprv. streets. **WPA. $70,547.**

†Va., Fort Eustis—Con. Q. M., grading, draining, structures, soil cement stabilized sidewalks, to Atlantic Bitulithic Co., Munsey Bldg., Wash., D. C. **$61,250.**

Wash., Spokane—Spokane Co., road mix and oil penetration paving 39 mi., to Standard Asphalt Paving Co., Inc., Chronicle Bldg. **$42,584.** C. F. Griggs, Courthouse, engr.

West Virginia—State Rd. Comn., Charleston, imprv. 0.43 mi. Brooke Co., to W. A. Wilson & Sons, St. Marys, **$28,864*****3.2 mi. Lincoln Co., to John A. Archer & Son, Wytheville, Va., **$80,360*****5.318 mi. Monroe Co., and 4.32 mi. Summers Co., to Janutolo & Co., Fayetteville, **$71,856** and **$53,169** respectively,***10.67 mi. Route 20, Summers Co., to Brown & Wright, Princeton, **$110,587*****Norton Bridge approaches, Randolph Co., to Dodd & Archer, Spencer, **$43,638.** Grand total $388,466. Bids 9/9. CD 8/28—ENR 9/4.

Wyo., Thermopolis—Hot Springs Co., Thermopolis, imprv. roads. **WPA. $65,000.**

EARTHWORK. WATERWAYS

PROPOSED WORK

†California—U. S. Eng., 208 Post Office Bldg., Sacramento, withdrew bids to have been opened Sept. 8, 132,000 cu.yd. in town of Knights Landing, Yolo Co., Inv. 1105-42-26, and 1,905,000 cu.yd. in Sacramento, Inv. 1105-42-25. CD 9/3.

†Neb., Homer—U. S. Eng., 1709 Jackson St., Omaha, excavating 188,000 cu.yd. earth from channel Missouri River to form pilot canal. $18,800.

†Neb., Rulo—U. S. Eng., 1709 Jackson St., Omaha, 1,728 ft. standard revetment with combination mattress in Missouri River, Rush Bottom Bend. $39,000.

†N. J., Bayonne—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., exten. timber, steel bulkheads Naval Supply Depot.

★**†Texas**—U. S. Eng., Santa Fe Bldg., Galveston, exten. Intracoastal Canal from Corpus Christi to Harlingen and Pt. Isabel. $3,000,000.

★**Tex., Houston**—Bond election Oct. 4, flood control. $800,000. CD 9/3—ENR 9/11.

Tex., Robstown—J. Kellam, mayor, drainage sys. 150 sq. miles, approx. 1,600,000 cu.yd. dirt removed, ditches. $305,000. Applied for PWA funds. M. C. Erwin, city engr.

★**†Wyoming**—Bureau Reclamation, Customhouse, Denver, Colo., Kortes Dam on Platte River between Pathfinder and Seminoe Dams, near Leo. $7,360,000.

BIDS ASKED

Bids Asked September 23

†Iowa—U. S. Eng., 1709 Jackson St., Omaha, Neb., 6,190 ft. dikes and 6,592 ft. revetment in Missouri River between Louisville and Blair Bends, 7 mi. downstream from River Sioux. $300,000. CD 8/27—ENR 9/4.

Bids Asked September 29

†California—Bureau Reclamation, Customhouse, Denver, Colo., tube valves for river outlets, Shasta Dam, Kennett Div. Central Valley Project, Spec. 991 CD 9/3—ENR 9/11.

Bids Asked September [illegible]

†Connecticut—U. S. Eng., Providence, R. I., dredging 47,000 cu. yd. Milford Harbor; adv. ENR 9/18.

Louisiana—Bd. Comrs. Caddo Levee Dist., Court House Bldg., Shreveport, Havana Bend New Levee. Caddo Parish.

N. Y., Huntington—Town Bd., Town Hall, bulkhead and shorewood fill, east shore Huntington Harbor, ¼ mi. north of Mill Dam Rd. F. Asbury, 355 New York Ave., Huntington, engr.; adv. ENR 9/18.

†O., Cincinnati—U. S. Eng., Federal Bldg. (1st unit) Millcreek Barrier Dam pump. station, portion west floodwall. CD 8/19—ENR 8/21.

Bids Asked About September 30

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, dredging Turning Basin, Newport Bay Harbor.

Bids Asked October 3

†Alaska, Kodiak—U. S. Eng., 2 and Madison Sts., Seattle, dredging and rock removal in Kodiak Harbor. CD 6/2—ENR 6/5.

Bids Asked October 15

†New York—U. S. Eng., Whitehall Bldg., 17 Battery Pl., New York, dredging 137,950 cu. yd. from Bronx River; adv. ENR 9/18.

LOW BIDDERS

†California—Bureau Reclamation, Old Post Office Bldg., Sacramento, Sept. 8, earthwork, structures, Battle Creek Rd., Migratory—Fish Control, Kennett Div., Central Valley Project, Spec. 970, from Sanders Constr. Co., 1903 El Camine Real, Redwood City. **$34,570.** CD 8/26—ENR 8/28.

★**†Colorado**—Bureau Reclamation, Customhouse, Denver, Sept. 8, Granby Dam and Dikes, Colorado-Big Thompson Project, Spec. 979, from W. E. Callahan Constr. Co., Gunther & Shirley Co., Peter Kiewit Sons Co. and George W. Condon Co., 714 W. Olympic Blvd., Los Angeles, Calif. **$5,247,555.** CD 8/29.

†Delaware—U. S. Eng., 900 Customhouse, 2 and Chestnut Sts., Phila., Pa., Sept. 8, placing 27,000 tons rubble stone to form exten. to northern one of 2 existing stone jetties Delaware River entrance to Chesapeake and Delaware Canal, Reedy Point, from Jesse A. Howland & Sons, Inc., 50 Church St., Sea Bright, N. J., **$98,010.** CD 8/25—ENR 8/28.

★**†New York**—Pub. Wks. Officer, 3rd Naval Dist., 90 Church St., New York, Sept. 9, dredging 105,000 cu. yd. along north and south sides Pier 7, Tompkinsville, from Henry Du Bois Sons Co., 17 State St., New York, **$47,250.** CD 8/21—ENR 8/28.

Texas—U. S. Eng., Federal Bldg., Galveston, Sept. 11, dredging 650,000 cu. yd. from Ferry slips and channels adjacent to Louisiana Texas Intracoastal Waterway, near Port O'Conner, from Jahncke Service, Inc., 814 Howard Ave., New Orleans, La. **$62,465.** CD 9/2—ENR 9/4.

†Washington—Bureau Reclamation, Customhouse, Denver, Colo., Sept. 10, transformers for Grand Coulee Dam Power Plant, Spec. 983, from General Electric Co., 1 River Rd., Schenectady, N. Y., Item 1 **$503,960;** from Allis-Chalmers Mfg. Co., 1126 South 70 St., Milwaukee, Wis. Item 2 **$151,200.** CD 8/12—ENR 8/14.

†Washington—Bureau Reclamation, Yakima, Sept. 12, earthwork, pipelines, structures Roza Div. of Yakima Project, Spec. 986, from D. A. Richardson, Winthrop. **$55,109.** CD 8/19—ENR 8/21.

★**†Panama**—General Purchasing Officer, The Panama Canal, 1435 K St. N.W., Wash., D. C., Sept. 10, 19,440,000 tons concrete aggregate for Third Locks Project, from Nevada Constr. Inc., 330 North 7 St., Las Vegas, Nev., **$6,880,000.** CD 7/21—ENR 7/24.

CONTRACTS AWARDED

★**†Calif., Morro Bay**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., section base dredging landing facilities, barracks, etc., in Morro Bay in San Luis Obispo Co., to Mercer-Fraser Co., 2 and Commercial Sts., Eureka. **$500,000** cost plus.

★**†Florida**—U. S. Eng., P. O. Box 4970 Jacksonville, St. Lucie Dam on St. Lucie Canal, about 8 mi. inland from Stuart, 7 steel taintor gates, operating machinery, etc., to V. P. Loftis, Builders Bldg., Charlotte, N. C. **$571,134.** CD 8/26—ENR 8/28.

†Kansas—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., 2,500 ft. pile revetment with suspended mattress in Missouri River between Doniphan and Rushville Bends, center of work being about 6 mi. downstream from Atchison, hired labor and Government plant. **$35,000.** CD 8/25—ENR 8/28.

†Missouri—U. S. Eng., 601 Davidson Bldg., Kansas City, removing points from channel Missouri River between Quindaro and Amazon Bends, 500,000 cu.yd. earth dredging, hired labor and government plant. **$50,000.** CD 8/19—ENR 8/21.

†Missouri—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., Sept. 9, 5,590 ft. dikes, 5,230 ft. revetment, excavating 430,000 yd. earth for pilot canal between Malta and Rocheport Bends in Missouri River, 4 mi. from Glasgow, dikes and revetment, to Bilhorn, Bower & Peters, Inc., 8015 Forsythe Blvd., Clayton,

EARTHWORK, etc. (Contracts Awarded, Cont'd.)

$219,719; pilot canal, to Woods Bros. Constr. Co., 504 South 18 St., Omaha, Neb., **$55,470.** Est. $250,000. CD 8/26—ENR 8/28.

†Nebraska and **Iowa**—U. S. Eng., 1709 Jackson St., Omaha, Neb., dredging 5,702,033 cu.yd. earth from channel Missouri River, Soldier, Civil, Omadi and Browers Bends, hired labor and government plant. **$365,000.** CD 7/18—ENR 7/24.

†New Jersey—U. S. Eng., 900 Customhouse, 2 and Chestnut Sts., Phila., Pa., dredging 15,700 cu. yd. from Rancocas River, Inv. 687-42-39, to Steen Eng. Corp., 541 Front St., Norfolk, Va. Bids 8/18. CD 8/13.

N. J., Dover—Morris Co., Court House, excavating, widening, deepening channel Green Pond Brook near Picatinny Arsenal. **WPA. $60,839.** C. Malstrom, Orange and N. 6 Sts., Newark, WPA and owner's, engr. CD 7/25—ENR 7/31.

†Pa., Phila.—Q.M. Depot, c/o J. J. Lynch, Regional Dir. WPA, City Hall, clearing grading, etc., Q.M. Depot, 21 and Johnson Sts., **WPA. $31,000.**

Pa., Wilkes-Barre—L. K. Eldridge, city clk., concrete retaining wall, Hazel St., own forces. **$25,000.** CD 8/28—ENR 9/4, under unclassified.

UNCLASSIFIED

PROPOSED WORK

Alabama—RURAL ELECTRIC LINES—Baldwin County Electric Membership Corp., L. A. Killough, Jr., supt., Robertsdale, completing rural electric sys. Baldwin and Monroe Counties. $30,000. REA allot.

Arkansas and **Missouri** — POWER LINE — Arkansas Power & Light Co., Pine Bluff, Ark., R. R. Pittmann, ch. engr., 55 mi. power line from Norfolk, Ark., to Forsythe, Mo. $450,000.

Ark., Fort Smith—RECREATIONAL BUILDING—c/o C. Holland, mayor, soldier's recreational center bldg. $36,000.

Calif., Los Angeles — UNDERGROUND CONDUIT LINE—Dpt. Water and Power Comn., 207 S. Bway., rescinded contract 7 duct underground and underground conduit electric power transmission line. CD 8/22—ENR 8/28 under CA.

Colorado—RURAL ELECTRIC LINES—Intermountain Rural Electric Assn., J. R. Maile, supt., Bailey, 24.3 mi. rural electric lines, Jefferson Co. $39,000 REA allot.

Georgia—RURAL ELECTRIC LINES—Grady County Electric Membership Corp., N.W. Stanfill, supt., Cairo, 80 mi. rural electric lines, Grady, Thomas, Decatur, Colquitt and Mitchell Counties. $67,000 REA allot.

Illinois—PIPELINE—Gas Utilities Co., C. E. Cook, mgr., Robinson, 9 mi. pipeline from Robinson to Oblong, Crawford Co.

Iowa—TRANSMISSION LINES—Des Moines Electric Light Co., 312 6 St., Des Moines and Iowa Southern Utilities Co., Des Moines, 31 mi. power transmission line from Creston to point near Adel. $250,000.

Iowa—POWER LINE IMPROVEMENTS—Des Moines Electric Light Co., 312 6 St., Des Moines, imprv. power line from Des Moines to Adel, $35,000, and installation switching station, Adel, $11,000.

Iowa—RURAL ELECTRIC LINES—Humboldt County Rural Electric Co-op., Humboldt, 95 mi. transmission lines. $99,000. REA allot. Stanlay Eng. Co., Muscatine, engr. CD 9/4.

Iowa—RURAL ELECTRIC LINES—Humboldt County Rural Electric Co-operative, H. L. McKee, supt., Humboldt, 95 mi. rural electric lines, Humboldt and Kossuth Counties. $99,000 REA allot.

Ia., Iowa City—SWIMMNG POOL—Voted bonds, swimming pool. $62,500. CD 8/26—ENR 8/28.

Kansas—RURAL ELECTRIC LINES—Arkansas Valley Electric Co-operative Assn., Inc., Sterling, 94.6 mi. transmission lines. $60,000. Paulette & Wilson, 1006 Topeka St., Topeka, engrs. CD 9/4.

Louisiana—RURAL ELECTRIC LINES—Valley Electric Membership Corp., L. H. Huson, asst. supt., Natchitoches, 36 mi. rural electric lines, Winn Parish. $36,000 REA allot.

Mass., Amherst — AIRPORT IMPROVEMENTS—Bd. Selectmen, Town Hall, N/S and E/W landing strips, 500x4,000 ft. paved runway 100 ft. wide, basic and contact lighting. $266,000. Dist. Engineers, 819 Industrial Trust Bldg., Providence, R. I., engrs.

†Mass., Chicopee Falls—AIR BASE—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., ordnance facilities, brick, steel buildings, magazines, etc., Army Air Base. $200,000.

Mass., Westfield—AIR FIELD—Bd. Selectmen, Town Hall, NE/SW exten. from 3,800 ft. to 4,000 ft., E/W landing strip from 3,200 to 4,000 ft., NW/SE landing strip 500x4,000 ft., paving three 150 ft. widths lighting facilities, Barnes Airport. $150,000. CAA. J. J. Fitzgerald, 600 Washington St., Boston, engr.

Michigan—OIL DEVELOPMENT—Gulf Refining Co., Gulf Bldg., Pittsburgh, Pa., extensive development crude oil properties, Osceola Co., incl. drilling unspecified number deep wells, connecting and gathering pipe lines, steel tank storage facilities. $50,000.

Mich., Sault Ste. Marie—AIRPORT—H. Sherman, city mgr., airport, two 3,800 ft. and one 3,500 ft. runways. $348,000.

Minnesota—RURAL ELECTRIC LINES—North Itasca Electric Co-operative, J. Savri, secy., Bigfork, 322 mi. rural electric transmission lines, Itasca and Koochiching Counties. $268,000. REA. General Eng. Corp., 2944 Cedar Ave., Minneapolis, engrs. CD 8/7.

★**Minn., St. Paul**—ORE DOCKS—J. B. McGrath, atty. for eastern steel interests, 30 E. Fillmore St., ore docks. $500,000.

Mississippi—RURAL ELECTRIC LINES—Four-County Electric Power Assn., L. Wise, supt., Columbus, 70 mi. rural electric lines, Choctaw Co. $35,000 REA allot.

Missouri — RURAL ELECTRIC LINES — Genevieve Electric Co-operative, Inc., Ste. Genevieve, and c/o L. W. Robb, atty., Perryville, rural electric lines, Ste. Genevieve, St. Francois and Perry Counties. $100,000. Michael Drazen & Associates, 4903 Delmar Blvd., St. Louis, engrs.

N. Y., Little Valley—AIRPORT—Little Valley Twp., Little Valley, exten., imprvs. to airport (Smith Field) incl. addnl. runways, etc. $35,000. Valley Flying Club, Inc., P. T. Champlin, pres., Little Valley, lessee.

Ohio—GAS PIPE LINE—American Rolling Mill Co., Middletown, bids soon 9 mi. 16 in. gas pipe line, from Hamilton Coke & Iron Co., New Miami to American Rolling Mill plant, Middletown. $200,000.

Oklahoma—RURAL ELECTRIC LINES—Northeast Oklahoma Electric Co-operative, Inc., W. C. Atkinson, supt., Vinita, 207 mi. rural electric lines, Delaware, Ottawa, Rogers, Craig and Mayes Counties. $218,000 REA allot.

Pennsylvania—SPUR LINE RAILWAY—Baltimore & Ohio R. R., Baltimore and Charles Sts., Baltimore, Md., C. B. Harveson, engr. Maintenance and Ways, 8.3 mi. spur line railway connecting Somerset-Cambria branch, near Shanksville, Stoney Creek and Somerset Twps. $25,000.

★**Pa., Avoca**—AIRPORT—U. S. Eng., P. O. Bldg., Baltimore, Md., bids soon airport, 700 acre site near here, for Comrs. Luzerne Co. and Lackawanna Co. $3,000,000. CAA.

Pa., Berwick — AIRPORT — Boro Council, municipal airport, runways, hangar, lighting, etc. Over $50,000.

Pa., Bradford — TRANSMISSION LINES — Bradford Electric Co., Bradford, additional exten. transmission and service lines, various locations, Bradford oil field, northern McKean Co. Over $25,000.

South Carolina—RURAL ELECTRIC LINES —Little River Electric Co-operative, Inc., F. Willard Brown, supt., Abbeville, completing rural electric sys. $60,000 REA allot.

South Dakota—RURAL ELECTRIC LINES—Black Hills Electric Assn., Inc., Custer, 194 mi. rural electric lines, Custer and Pennington Counties. $180,000. W. Walkling, Rapid City, engr.

★**Texas** — AIRPORT — Towns of Weslaco, Mercedes Harlingen, San Benito and Donna (Mid-Valley Air Base Comn. official name, Donna), municipal airport, 3 mi. west Weslaco. $1,300,000. Tamm & Fitzgérald, Harlingen, consult. engrs.

Texas—RURAL ELECTRIC LINES—Floyd County Rural Electric Co-operative, Inc., L. W. Chapman, supt., Floydada, 216 mi. rural electric lines, Crosby, Dickens, Floyd and Hale Counties. $152,000 REA allot.

Texas—RURAL ELECTRIC LINES—Medina Electric Co-operative, Inc., T. E. Bredthauer, supt., Hondo, bids soon 189 mi. rural electric lines, Medina and Uvalde Counties. $137,000 REA allot. J. W. Beretta engr. Inc., 1203 Natl. Bank of Commerce Bldg., San Antonio, engrs.

Tex., Arlington—HEALTH CENTER—Health center, swimming pool, recreation facilities. $65,000. Applied for WPA funds.

Tex., Brownsville—SHIPBUILDING PLANT —Brownsville Shipbuilding Corp., c/o S. F. Ewing, Brownsville, shipbuilding plant and yards expansion.

†Tex., Camp Wallace—DRILL AREA IMPROVEMENTS—Con. Q.M., bids soon draining, leveling, placing oyster shell topping military drill area. $50,000.

★**†Tex., Dallas**—AIR BASE—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., air base, for 4th Army Air Force, and facilities for over 6,000 personnel, 200x850 ft. steel hangar for maintenance work, runways, bachelor quarters, water, sewers, gas, electric lines, etc., $9,000,000; buildings, facilities for Army Bombardment Base, $1,000,000.

Tex., Denton — SWIMMING POOL — Rein.-con. outdoor swimming pool, recreational park imprvs., etc. $50,000 bonds voted. H. Smith, c/o Allen Bldg., Dallas, engr. CD 8/28—ENR 9/4.

★**†Tex., Fort Worth**—BOMBARDMENT BASE—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., buildings, facilities, for Army Bombardment Base. $1,000,000.

★**Tex., Houston** — AIRPORT — N. Pickett, mayor, bond election Oct. 4, airport imprvs. $800,000. CD 9/3—ENR 9/11.

★**Tex., Houston**—FIRE ALARM SYSTEM—N. Pickett, mayor, expanding fire alarm sys., erecting traffic sign sys. etc. $952,350. Applied for PWA gr.

Tex., Houston — SUB-STATION, etc.—Bond election Oct. 4, sub-station, fire alarm extension sys. $320,000.

★**Tex., Palestine** — AIRPORT EXPANSION —Airport expansion. Total cost $550,000. CAA.

Tex., Seymour—AIRPORT—Baylor Co., c/o Judge, voted bonds, airport. $75,000.

Tex., Robstown—RECREATION CENTER—City, R. Butler, rein.-con. health-recreation center, 50x150 ft. swimming pool, etc. $38,000. Hamon & Co., c/o Jones Bldg., Corpus Christi, archts.

Tex., Vernon — AIRPORT — Voted $80,000 bonds, airport, incl. ground development, shops, hangars, etc. $270,000. CAA. R. P. Woltz, Jr., 810 Dan Waggoner Bldg., Fort Worth, consult. engr. CD 8/22—ENR 8/28.

Washington—RURAL POWER LINE—Orcas Light & Power Co., Eastsound rural power line to serve farms on Orcas Island. Over $25,000. W. S. McCrea, Jr., Perkins Bldg., Tacoma, engr.

Wash., Aberdeen — SHIPYARD — Prefabricated Ships, Inc., c/o O. J. Gregg, Northern Life Tower, Seattle, shipyard. Over $40,000.

Wash., Olympia—RUNWAYS—$60,000 bond election Sept. 30, exten. 2 runways, construction third, airport. $100,000. C. H. Williams, City Hall, engr.

Wash., Yakima — ELECTRIC SYSTEM — Yakima Co. Public Utility Dist., electric sys. serving Yakima industrial dist. with exten. to Toppenish. Over $25,000. Burns & McDonnell, 107 W. Linwood Blvd., Kansas City, Mo., engrs.

Wisconsin—RURAL ELECTRIC LINES—Vernon Electric Co-operative, N. F. Leifer, supt., Westby, 71 mi. rural electric lines, Vernon, Monroe, Sauk, Juneau and La Crosse Counties. $65,000 REA allot.

Wisconsin—RURAL ELECTRIC LINES—Waupaca Electric Co-operative, H. C. Patterson, supt., Iola, 51 mi. rural electric lines, Marathon, Portage and Shawano Counties. $47,000 REA allot.

BIDS ASKED

Bids Asked September 24

Iowa — TRANSMISSION LINES — Rideta Electric Co-operative, Inc., Mount Ayr, 281 mi. transmission lines. K. R. Brown, 802 VB Bldg., Des Moines, consult. engr.

Missouri—TRANSMISSION LINES—Three Rivers Electric Co-operative, Linn, 300 mi. transmission lines. Frank Horton & Co., Lamar, engrs. 8/22—ENR 8/21.

Que., Montreal—ARC LIGHTS — Executive Comm., City Hall, replacement arc lights, city streets. $70,000. J. E. Gauthier, city clk. CD 12/4—ENR 12/12.

Bids Asked September 27

†W. Va., Huntington — POWER TRANSFORMERS—U. S. Eng., Huntington, 3 power transformers, Sect. 1, West End, Serial 516-42-45.

Bids Asked September 29

†Oregon—TOWERS—Bonneville Power Administration, 811 N.E. Oregon St., steel towers, appurtenances for Bonneville-Vancouver Line 5 (circuits 5 and 6), Bonneville transmission sys.

†Washington — STEEL TOWERS — Bonneville Power Admin., P. O. Box 3537, Portland, Ore., steel towers, etc., for Bonneville-Vancouver Transmission Line 5, Inv. 2237.

Bids Asked About September 30

Miss., Gulfport — AIRPORT IMPROVEMENTS—U. S. Eng., Federal Bldg., Mobile, Ala., grading, paving, utilities, CAA Airport, near here.

†Tex., Greenville — AIRPORT IMPROVEMENTS—U. S. Eng., Citizens Bank Bldg., Denison, airport imprvs., 60 acres clearing, 455,000 cu. yd. stripping and excav., 160,000 cu. yd. replacing topsoil, etc. $470,000.

Bids Asked September 30

†Arizona-California-Nevada—Bureau Reclamation, Customhouse, Denver, Colo., furnishing, del. 1 turbine-inlet pipe for Unit A-5 in Boulder power plant, Boulder Canyon Project, Spec. 1547-D.

Texas—RURAL ELECTRIC LINES—Rusk County Electric Co-operative, Inc., c/o W. R. Mehner, supt., Henderson, 150 mi. rural electric lines, Gregg, Panola and Rusk Counties. $125,000. Freese & Nichols, Capps Bldg., Fort Worth, engrs. CD 8/15—ENR 8/21.

†Tex., Denison — TURBINES — U. S. Eng., Citizens Bank Bldg., Denison, 2 turbines with accessories, and 2 sets governing equip., embedded parts for Denison Dam Power Plant.

Bids Asked October 1

†Oregon—CROSS-ARM FIXTURES—Bonneville Power Admin., P. O. Box 3537, Portland, furnishing cross-arm fixtures for Oregon City-Salem 115 kv. Line 2, Inv. 2238.

UNCLASSIFIED (Bids Asked, Cont'd.)

Bids Asked October 2

Nebraska — RURAL ELECTRIC LINES — Cuming County Rural Public Power Dist., C. Graff, pres., West Point, Neb., 24 mi. addnl. rural electric lines, Cuming Co. $25,000. H. H. Henningson, 626 Standard Oil Co. Bldg., Omaha, engr.

Bids Asked October 7

New Jersey—VENTILATION BUILDING—At office General Manager, Port of New York Auth., 111 8 Ave., New York, N. Y., Contr. MHT-58, New Jersey Ventilation building. F. C. Ferguson, chn.; adv. ENR 9/18.

Bids Asked October 9

†Ore., Bonneville—SWITCHES—U. S. Eng., Pittock Blk., Portland, 27 disconnecting switches, 600 to 1200 amp., 115 kv. outdoor type, for Bonneville Dam powerhouse, Inv. 698-42-149.

†Washington—Bureau Reclamation, Customhouse, Denver, Colo., furnishing, del. twenty-seven 14x17 ft. bulkhead gates for installation at outlet ends of turbine draft tubes in right powerhouse of Grand Coulee power plant, Columbia Basin Project, Spec. 989.

Bids Asked October 10

†Oregon—TRASH RACKS, etc.—U. S. Eng., 628 Pittock Blk., steel trash racks, gates, stop logs, dogging devices and storage hooks for Bonneville dam powerhouse, Inv. 698-42-150.

Bids Asked

†Tenn., Camp Forrest—GASOLINE SYSTEM—U. S. Eng., U. S. Customhouse Nashville, A. C. Gasoline sys., 128th Observation Squadron Airfield.

LOW BIDDERS

N. Y., Brooklyn—SIGNAL and TELEPHONE EQUIPMENT INSTALLATION — Brooklyn Boro President, Boro Hall, Sept. 9, installing signal and telephone equip. Fulton St. line exten. from T. H. Emerson Co., Inc., 370 Lexington Ave., and L. K. Comstock & Co., 155 E. 44 St., both New York, combined bid **$414,575** (unofficial).

†Pa., Phila. — PIER — Pub. Wks. Officer, exten. pier on timber platform, Navy Yard, from Charles F. Vachris, Inc., 827 Remsen Ave., Brooklyn, **N. Y. $129,655.**

†Wash., McChord Field—AIRPORT—U. S. Eng., Central Bldg., Seattle, Sept. 8, paving west entrance road, streets and warm-up apron addn., Inv. 869-42-71, from Fiorito Bros., 1100 Leary Way, Seattle, $98,952. CD 9/4.

CONTRACTS AWARDED

†Ark., Fort Smith—CEMETERY IMPROVEMENTS—Con. Q. M., Omaha, Neb., gates, etc. National Cemetery, to Kingery Constr. Co., 1941 Y St., Lincoln, Neb., **$42,613.** CD 6/16.

†Calif., Fresno—LANDING STRIP, etc.—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., landing strip, runways, taxiways, etc., Fresno Air Base, to N. M. Ball Sons, 852 Carmel St., Berkeley. **$290,097.** CD 1/7—ENR 1/9, under Public Bldgs.

★ **†Calif., Lemoore**—LANDING STRIP, etc.—U. S. Eng., 208 Post Office Bldg., Sacramento, landing strip, runways, taxiways, aprons, etc. Air Corps Flying School, to Pacific Rock & Gravel Co., 208 W. 8 St., Los Angeles. **$694,844.** CD 7/7—ENR 7/10.

†Calif., Mather Field — WARMING-UP APRON—War Dpt., 20 St. and Constitution Ave., N.W., Wash., D. C., warm-up-apron, military airport, to Ford J. Twaits Co., 816 W. 5 St., Los Angeles. **$252,121.**

★ **†Calif., Stockton**—FLYING SCHOOL—U. S. Eng., 208 Post Office Bldg., Sacramento, temporary bldgs., water, gas, sewer, storm, drain and electrical sys., streets and sidewalks, to Thomas C. Buck, 250 E. Cleveland St., **$669,398.** CD 7/7—ENR 7/10.

†Fla., Eglin Field—AIRFIELD FACILITIES — Con. Q.M., additional facilities, roads, walks, curbs, gutters, electrical and telephone facilities. **WPA. $74,839.**

★ **†Fla., Sebring** — FLYING FIELD IMPROVEMENTS—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., clearing land, constructing, paving runways, excav. work and draining, Army Flying Center, to Ivy H. Smith Constr. Co., San Marco Blvd., Jacksonville, and B. B. McCormack & Sons, Barnett Bldg., Jacksonville. **$1,851,000.** Awarded 9/12. Additional to CD 7/11—ENR 7/17, under CA.

†Ga., Hinesville—SITE DEVELOPMENT—Con. Q.M., Camp Stewart, site development, installing utilities, to A. Farnell Blair, 215 Church St., Decatur. **$64,000.** Additional to CD 4/29—ENR 5/1, under CA.

†Ga., Valdosta—RUNWAYS, etc.—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., clearing, grubbing, excavating, placing embankment to complete grading for runways, apron and taxi strips, Advanced Twin Engine Flying School, to Coffee Constr. Co., Eastman, **$314,585.**

Ia., Spencer—HEATING DISTRIBUTION SYSTEM — Reconstructing central heating distr. sys., business dist., to Brunais & Pitcher, Spencer. **$109,600.**

Ia., West Union — RAILS — Chicago, Rock Island & Pacific R.R., F. W. Thompson, ch. engr., LaSalle St. Station, Chicago, Ill., relaying heavier rails between West Union and Decorah, own forces. Est. **$25,000.**

★ **Me., Houlton**—AIR BASE—U. S. Eng., Park Sq. Bldg., Boston, Mass., temporary buildings, six 63-man barracks, one 74-man barrack, 2 recreational buildings, 2 storehouses, officers club, cafeteria, mess, etc., air base, to T. W. Cunningham, Inc., 61 Muim St., Bangor. **$894,000.**

Kan., Wichita—AIRPORT IMPROVEMENTS—A. McDonald, city dir., airport imprvs., **WPA. $196,000.** CD 3/26—ENR 4/3.

★ **†Me., Presque Isle** — AIR BASE — U. S. Eng., Park Sq. Bldg., Boston, Mass., 51 temporary buildings, barracks, storehouses, hospital, facilities, mess halls, officers quarters, etc., army air base to Joseph E. Bennett Co., 91 Newbury St., Boston, Mass., **$1,144,987.** Awarded 8/8.

Mass., Beverly—AIRPORT—Second landing strip, 500x3,500 ft., paving runway. **WPA. $239,971.** CAA. J. J. Fitzgerald, 600 Washington St., Boston, engr.

Mass., Fitchburg — AIRPORT IMPROVEMENTS — Second landing strip NE/SW 500x4,000 ft., paving runway, basic and contact lighting. **WPA. $323,142.** CAA. J. J. Fitzgerald, 600 Washington St., Boston, engr.

Neb., Omaha—CAR TRACK REMOVAL—D. Butler, mayor, removing 4 mi. abandoned street car tracks and repaving, **WPA. $57,800.**

New York—TRANSMISSION LINES—Niagara, Lockport & Ontario Power Co., Electric Bldg., Buffalo and Fredonia, exten., imprv. service and transmission lines, rural areas, Chautauqua and Erie Counties, own forces. Over **$40,000.** CD 8/14—ENR 8/21.

†N. C., Charlotte—AIR BASE—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., imprv. grounds, Air Base and constructing athletic fields, **WPA, $65,359**

N. C., Kings Mountain—STADIUM and ATHLETIC FIELD—H. L. Burdett, town mgr., stadium and athletic field, **WPA. $60,000.**

†N. J., Fort Dix—CAMP IMPROVEMENTS—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., excavating, grading, 12 and 36 in. corrugated iron pipe, relaying railroad, etc., **WPA. $51,500.**

N. C., Winston Salem—PARK—J. R. Fain, mayor, recreational park, Ardmore sect., **WPA, $74,692.**

Pennylvania—GATHERING PIPE LINES—United Refining Co., Box 780 Warren, gathering pipe line sys., various locations, Warren County oil field, own forces. **$25,000.**

Pennsylvania — PETROLEUM DEVELOPMENT, etc.—Owner, c/o contractor, developing petroleum and gas area, drilling wells, connecting and gathering lines, steel tank storage facilities, booster stations, etc., near Leesburg, Mercer Co., to A. E. Bream Co., Butler. Est. **$40,000-$60,000.**

Pennsylvania—TELEPHONE LINES, etc.—Bethel & Mt. Aetna Telephone & Telegraph Co., H. W. Himmelberger, secy., Myerstown, exten., imprv. lines and facilities, Lebanon and Berks Counties, own forces. **$50,000.** CD 8/28—ENR 9/4.

Pa., Johnstown — TROLLEY RAIL REMOVAL—Johnstown Street Ry. Co., Johnstown, removing trolley rails from Oakhurst Line and in S. Cambria St., repaving afterwards, own forces. **$25,000-$40,000.** CD 9/3—ENR 9/11.

†Pa., Middletown—HEATING FACILITIES—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., heating facilities, Air Depot, to Harry A. Kuljian, 1518 Walnut St., Phila., **$405,684.** CD 8/21—ENR 8/28.

Pa., Renovo—COALING STATION — Pennsylvania R.R. Co., Penna. Sta., Pittsburgh, C. I. Leiper, ch. engr. (central region), steel, concrete mechanically operating coaling sta., 2 pocket coal wharf, sand bin, etc., to Ogle Constr. Co., 28 E. Jackson St., Chicago, Ill. Est. **$40,000.**

Pa., Scranton—CLIFF REMOVAL—Dpt. P. Wks., W. Schunk, dir., removing cliff, Putnam St. area, own forces. **$30,942.** F. K. Derby, city engr. CD 9/3—ENR 9/11.

Pa., Sharon—TROLLEY TRACK REMOVAL, etc.—F. S. Williams, city clk., removing 6 mi. trolley tracks, repaving areas afterwards, **WPA. $50,000.** L. E. Burnside, city engr. CD 4/21—ENR 4/24.

†Tex., Camp Wallace—PLAY COURTS, etc.—Con. Q.M., constructing play courts, grading, sodding, landscaping, draining, etc., **WPA. $205,688.**

†Tex., Galveston—NAVAL SECTION BASE—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Naval Section Base, heavy timber, concrete docks, yards, dredging, shops for making repairs to small patrol boats, submarines, etc., lighting facilities, bombing protection, etc., to T. B. Hubbard Constr. Co., 1507 Delano St., Russ Mitchell, Inc., 2302 Jefferson St., and Knutsen Constr. Co., Natl. Bank Bldg., all Houston. **$375,000.** CD 6/10—ENR 6/12.

Tex., Houston — AIRPORT — Sam Houston Airport, Inc., c/o J. F. Meyer, Jr., c/o Houston Natl. Bank, airport on 500 acre site outside city, sub-contracts. **$60,000.**

†Tex., Mission—AIR CORPS TRAINING CENTER—U. S. Eng., Santa Fe Ry. Bldg., Galveston, supplemental contract, air corps training center, to Hill & Combs, 321 Melrose Pl., San Antonio, and R. W. Briggs Constr. Co., Sunset Rd., San Antonio. $[illegible]617. Additional to CD 7/7—ENR 7/10, under CA.

★ **†Tex., Victoria**—AIR BASE—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., supplemental contract 44 miscellaneous bldgs., officers mess, additional hospital bldgs., enlarging gas and oil storage sys., grading, draining, paving runways and aprons also lighting ducts in runway and aprons, etc., Advanced Pilot Training School, to American Friedman Bitulithic Assn., Rusk Bldg., Houston, **$1,932,838.** Additional to CD 4/16—ENR 4/24, under CA.

★ **†Virginia** — RAILROAD — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., railroad from Naval Ammunition Depot, Dahlgren to Fredericksburg, to Haley, Chrisholm & Morris, Inc., and Gilbert Constr. Co., Charlottesville. **$1,350,000,** cost plus.

†Wash., Vernita—CONDENSERS—Bonneville Power Admin., P.O. Box 3537, Portland, Ore., Sept. 8, synchronous condensers for Midway substation, Inv. 2137, from Westinghouse Electric & Mfg. Co., Union Bank Bldg., Pittsburgh. **$151,160.** CD 8/25—ENR 8/28.

W. Va., Maidsville—COAL LOADING DOCK, etc.—Interstate Engrs. & Constructors, Inc., Maidsville, coal loading dock, marine terminal, left bank of Monongahela River, incl. tipple, conveyor, etc., own forces. Over **$25,000.** CD 8/27—ENR 9/4.

†Canal Zone, Howard Field — HEADER HOUSES, etc. — Con. Q.M., Albrook Field, header houses and piping for gas storage sys., to Raymond, Aldous & Fesler, P. O. Box 731, Balboa, Canal Zone. **$44,003.** Bids 8/22, awarded 9/5.

Alta., Calgary—AERODROME—Dpt. National Defense for Air, Ottawa, Ont., structural steel bracing, R.C.A.F. School, to Dutton Bros. & Assiniboia, Eng. Co., McArthur Bldg., Winnipeg, Man., **$49,000.**

Alta., Grande Prairie — AIRPORT — Dpt. Transport, Ottawa, Ont., airport, to Chas. T. M. Turner, et al, Grande Prairie, about **$45,800.**

B. C., Smithers—AERODROME—Dpt. Transport, Ottawa, Ont., preliminary development, airport, to Carter-Halls-Aldinger Co. Ltd., Royal Bank Bldg., Winnipeg, Man., about **$293,000.** CD 3/20.

Man., Winnipeg—RUNWAYS—Dpt. Transport, Ottawa, Ont., hard-surfaced runways, taxiways, etc. Stevenson Field aerodrome to Tomlinson Const. Co. Ltd., 1 Somerset Bldg., about **$47,276.**

★ **†Newfoundland**—AIRPORT—Dpt. National Defense for Air, Ottawa, Ont., hangars, administration bldg., living quarters, mess hall, garages, etc., airbase, east coast, to E. G. M. Cape & Co., Ltd., 620 Cathcart St., Montreal, Que. Est. about **$500,000.**

N. S., Halifax—LIGHTHOUSE TOWER—Dominion Govt., Ottawa, Ont., lighthouse tower, to J. P. Kelly, 28 Kent St. **$25,000.** CD 7/21.

N. S., Stanley—AIRPORT—Dpt. Transport, Ottawa, Ont., addnl. development intermediate air training airport, to Municipal Spraying & Contg. Ltd., 1350 Barrington St., Halifax, about **$82,000.**

Ont., Burtch—AERODROME—Dpt. National Defense for Air, Ottawa, Ont., ground service, grading, levelling and runways, to Armstrong Bros. Constr. Co., Ltd., 19 Main St. N., Brampton. **$40,000.**

Ont., Grand Bend—AIRPORT—Dpt. National Defense for Air, Ottawa, groundwork, runways, etc. airport, to Towland Constr. Co., Ltd., 294 Dundas St., London, about **$150,000.**

Ont., Centralia—AIRPORT—Dpt. National Defense for Air, Ottawa, groundwork development for S.F.T. School to Warren Bituminous Paving Co., Ltd., 437 Fleet St. W., Toronto, about **$150,000.** Bids 8/29. CD 8/25.

Ont., Malton—AERODROME—Dpt. Transport, Ottawa, developing aerodrome, grubbing, runways, etc., to Godson Const. Co., Ltd., 203 Richmond St. W. Toronto, about **$104,000.**

★ **Ont., Ottawa**—AIRPORT—Dpt. Transport and National Defense for Air, Ottawa, airport, groundwork, runways, hangars, taxi strips, grading, wharf, landing stage, buildings, etc., for R. C. A. F. at an unnamed station of East Atlantic coast, to McNamara Constr. Co. Ltd., 12 Industrial St., Leaside, Toronto, about **$1,000,000.** CD 2/26—ENR 3/6.

Que., Dorval—AERODROME—Dpt. Transport, Ottawa, Ont., preliminary aerodrome development, E. F. T. school and Air Observers School, to Dibblee Constr. Co. Ltd., 660 St. Catherine St. W., Montreal, about **$490,000.**

Que., Mont Joli—HANGARS, etc.—Dpt. National Defense for Air, Ottawa, Ont., airport buildings, hangars, etc. to Newton Constr. Co., Ltd., 150 Victoria St., Sherbrooke, and Collet Freres, Ltee., 1978 Parthenais St., Montreal, about **$700,000.**

Que., Noranda—DRY HOUSE, etc.—Stadacona Rouyn Mines, Ltd., dry house and machine shop, to Hill-Clark-Francis, Ltd., Noranda., about **$45,000.**

UNCLASSIFIED (Contracts Awarded, Cont'd.)

Que., Lauzon—SLIPWAYS—G. T. Davie & Sons, 27 Davie St., slipways, grading, to U. Ste. Marie, Beauport, **$30,000.**

★**Sask., Assiniboia**—HANGARS, etc.—Dpt. National Defense for Air, Ottawa, Ont., various bldgs., hangars, living quarters, mess halls, dormitories, etc., S.F.T. School., to P. W. Graham & Sons, Ltd., Willard Hotel, Moose Jaw. **$500,000.** CD 4/23.

Sask., Davidson—AIRPORT—Dpt. National Defense for Air, Ottawa, Ont., buildings, hangars, dormitories, mess halls, etc., for E.F.T. School, to Waterman & Waterbury Constr. Co. Ltd., Edmonton, Alta., **$480,000.** CD 8/21—ENR 8/28.

★**Sask., Estevan**—HANGARS—Dpt. National Defense for Air, Ottawa, Ont., 4 hangars, other buildings, S.F.T. School, to Bird Constr. Co., Ltd., 7 and Smith Sts., Winipeg, Man. **$1,000,000.**

Sask., Kindersley—COALING DOCK—Canadian National Rys., J. W. Porter, ch. engr. (western region) Winnipeg, Man., 200 ton mechanical coaling dock with sand pocket, to Pearson Bros., Ltd., 718 McIntyre Bldg., Winnipeg, Man., about **$100,000.** Bids 8/11. CD 8/1—ENR 8/7.

Sask., St. Aldwyn—HANGAR, etc.—Dpt. National Defense for Air, Ottawa, Ont., hangar, other buildings at Relief Intermediate Aerodrome, to Bird Constr. Co., Ltd., 7 and Smith Sts., Regina, about **$125,000.**

Sask., Watrous—COALING PLANT—Canadian National Rys., J. W. Porter, ch. engr., Winnipeg, Man., 300 ton mechanical coaling plant, sand pocket, to Pearson Bros., Ltd., 718 McIntyre Bldg., Winnipeg, Man., about **$150,000.** Bids 8/11. CD 8/4—ENR 8/7.

LATIN AMERICA

★**Mexico, Vera Cruz, Cuatotolapan**—Cia Azucarera Industrial Edificio Banco de Mexico, Mexico, plans renovating sugar central to double present cane grinding capacity of 1,000 metric tons with proceeds of mortgage bond issue. **$515,000. Work scheduled to start within 90 days.**

PUBLIC BUILDINGS

PROPOSED WORK

Ark., Little Rock—Baptist State Hospital, plans by Erhart & Eichenbaum, Gem Bldg., hospital addn. $280,000.

†**Calif., Benicia**—Benecia Unified School Dist., school addn., etc. Docket Calif. 4-122. $59,569. **DPW.**

†**Calif., Benicia**—Benicia Unified High School Dist. high school addn., Docket Calif. 4-130. $35,700. **DPW.**

★†**Calif., Burbank** — Vega Airplane Corp., 2555 N. Hollywood Way, plans by John & Donald Parkinson, 434 Title Insurance Bldg., Los Angeles, extensive plant addn., incl. warehouse, office bldg., paint hangar, flight hangar, for War Dpt. Defense Plant Corp. will finance. $1,822,713. CD 9/3—ENR 9/11.

†**Calif., Clearwater**—Clearwater Elementary School Dist. of Los Angeles Co., school and school addn., Docket Calif. 4-111. $105,411. **DPW.**

†**Calif., Inglewood**—Inglewood Union High School Dist., Los Angeles Co., school bldgs., Docket Calif. 4-172. $74,000. **DPW.**

†**Calif., Lynwood** — Lynwood Elementary School Dist. plans by Marsh, Smith, Powell, 16 Architects Bldg., 238x300 ft. central school, Docket Calif. 4-117. $199,969. **FWA.** CD 9/8—ENR 9/11.

Calif., San Rafael—Supervs. Marin Co. rejected bids court house addns. N. W. Sexton, de Young Bldg., San Francisco, archt. CD 9/2—ENR 9/4 under LB.

★†**Calif., Santa Monica**—Douglas Aircraft Co., Inc., 3000 Ocean Park Blvd., construction and acquisition emergency plant facilities, for manufacture of air frames for heavy bombardment airplanes, for War Dpt. $12,619,097.

Calif., Stockton—A. Boyd, state archt., P. Wks. Bldg., Sacramento, rejected bids Sept. 3, rein.-con. ward for infirm females, at Stockton State Hospital, for State. CD 9/10—ENR 9/18, under LB.

†**Calif., Vallejo**—City, health center, Docket Calif. 4-137. $32,498. **FWA.**

†**Colo., Fort Logan**—School Dist. 75, Arapahoe Co. school addn., imprvs., Docket Colo. -102. $6,000. **DPW.**

†**Conn., Bridgeport**—Bridgeport Rolling Mills Co., Bruce St. and Stratford Ave., brick, steel, concrete mill, Stratford Ave. $110,000. Defense Plant Corp. will finance.

†**D. C., Wash.**—Defense Homes Corp., 811 Vermont Ave. N.W., 600 room hotel, fronting Meridian Park, 15 and 16 Sts.

★**Fla., Miami Beach**—Plans by A. Geigler, 731 Lincoln Rd., municipal hospital. $500,000.

★**Georgia**—Central Georgia Housing Assn., c/o P. Campbell, Covington, housing projects in Spalding, Butts, Monroe, Upson, Henry, Jasper, Morgan, Quitman, and Jones Counties. $900,000.

†**Ga., Hinesville**—City, health center, Docket Ga. 9-108. $13,390. **DPW.**

★**Ga., Macon**—Macon Hospital, c/o Dr. O. L. Ridley, supt., hospital imprvs., 5 story negro sect. addn., remodeling administration offices and entrance, nurses' home addn., etc. $600,000.

Ga., Waycross—Waycross & Ware County Chamber of Commerce, Waycross, factory addn. $65,000.

†**Ill., Chicago**—Pullman Standard Car Mfg. Co., 11000 Cottage Grove Ave., plant for manufacturing aircraft equip., for War Dpt. $159,826 for land and buildings, $130,366 for machinery. Defense Plant Corp. will finance.

Ill., Princeton—Imprv. municipal water and light plant, turbine, condenser, switchboard, cooler and building addn. $110,000. K. Brown, c/o City Clerk, engr.

Ia., Slater—P. Reed, town clk., voted $65,000 bonds, electric light and power plant. R. W. Gearhart, 349-21 St. S.E., Cedar Rapids, engr. CD 8/27—ENR 9/4.

Kan., Kansas City—Prairie Grade School Dist., RFD, Kansas City, 67 St. and Mission Rd., plans by Keene & Simpson, Land Bank Bldg., Kansas City, school addn. $300,000. Approved bond issue. CD 9/2—ENR 9/4.

★**Kan., Wichita**—Plans by Overend & Boucher, Brown Bldg., hospital. $700,000. Filed application with PWA.

Me., Portland—School Dpt., City Hall, sketches by Miller & Beal, Inc., 465 Congress St., 2 story, bsmnt., 62x305 ft., and 73x93 ft., brick, stone Junior High School, concrete fdn., Deering Ave. $460,000. PWA.

Md., Salisbury—Bd. Educ., Wicomico Co., plans by Malone & Wilhams, South St., and bids soon, school. $150,000. CD 7/16—ENR 7/24.

†**Mass., Ayer**—Town, 6 room frame elementary school, concrete fdn., Docket Mass 19-110. $36,000. **DPW.**

†**Mass., Falmouth**—United Service Organization sketches by E. Gunnar Peterson, Oyster Pond Rd., Quissett, brick, recreation center, Docket Mass 19-103. $85,000. **DPW.** CD 9/10.

†**Mich., East Detroit**—School Dist. 2, Fractional Twps. Erin and Warren, Macomb Co., 10 room high school addn., Docket Mich. 20-129. $82,926. **DPW.**

Mich., Marysville—Bd. Educ. plans by W. H. Wyeth, 323 U. S. Bank Bldg., Port Huron, high school. $150,000. CD 5/2—ENR 5/8.

Mich., Traverse City—Brick, steel, rein.-con. steam turbo-generator addn. to city power plant. Hamilton & Weeber, 420 Federal Sq. Bldg., Grand Rapids, engrs.

Minn., North St. Paul (br. St. Paul)—A. M. Jankowski, town clk., municipal electric light plant. R. W. Richardson, 428 New York Bldg., St. Paul, engr.

Miss., Hattiesburg — G. Calhoun, mayor, plans by Landry & Mathes, Hattiesburg, recreational center. $450,000.

Miss., Pascagoula — Plans by Carl L. Olschner Carondelet Bldg., New Orleans, La., courthouse. $450,000. CD 8/22—ENR 8/28.

★**Mo., St. Louis**—C. H. Ellaby, pres. Bd. Pub. Serv., 304 City Hall, plans by A. Osburg, 301 City Hall, 8 brick, concrete fire engine houses, remodeling, imprv. existing houses, various parts of city. $1,278,939. Seeking PWA funds. W. Crecelius, 301 City Hall, engr.

★**Neb., Omaha**—Bd. Educ., plans by John Latenzer & Sons, 1307 Farnam St., South High School addn. $1,100,000. Applied for WPA funds. CD 7/15—ENR 7/17.

†**N. H., Manchester**—Pub. Bldgs. Admin., 9 and D Sts. S.W., Wash., D. C., sketches 85 units single defense housing, Weston Rd. $295,000. CD 7/30—ENR 8/7.

†**N. H., Portsmouth**—City, elementary school, Docket N. H. 27-103. $103,350. **DPW.**

†**N. J., Bayonne**—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., cold storage bldg., warehouse and 2 storage warehouses, Naval Supply Depot.

★†**N. J., Dover**—Federal Works Agency, 7 and D Sts.. S.W., Wash., D. C., indefinitely postponed opening bids 300 defense housing units, S. Salem St. $1,050,000. CD 9/8—ENR 9/11.

N. J., Montclair—Bd. Educ., Town Hall, plans by Starrett & Van Vleck, 267 5 Ave., New York, N. Y., 2 story, 50x100 ft., brick, steel Hillside School addn. and alterations, Orange Rd. $390,000. Elwyn E. Seelye & Co., 101 Park Ave., New York, N. Y., engr.

†**N. M., Gallup**—Bd. Educ. school, school addns., Docket N. M. 29-102. $56,325. **DPW.**

N. Y., Yonkers—City Planning Comn., Col. A. P. Hoover, consult., Yonkers, bus terminal. Over $150,000.

O., Apple Creek—State Dpt. Welfare, State Office Bldg., Columbus, C. Sherwood, dir., plans by Garfield, Harris, Robinson & Shaffer, Natl. City Bank Bldg., Cleveland, administration building, $200,000, and 2 patients bldgs., $250,000 ea. Apple Creek Institution for Feeble-Minded. CD 6/25—ENR 7/3.

O., Athens—Ohio Dpt. P. Wks., F. Raschig, dir., State Office Bldg., Columbus, plans by D. W. Moore, 79 E. State St., Columbus, science bldg., at University. $200,000. CD 6/25—ENR 7/3.

O., Campbell—$250,000 bond election Nov. 4, Memorial High School and Reed School addns.

★**O., Cleveland**—Cleveland Park Plaza, Inc., H. H. Griswold secy.-treas., 1522 Standard Bldg., plans by Garfield, Harris, Robinson & Schaefer, 915 Natl. City Bldg., three 3 story stone, glass block, concrete medical center bldgs., E. 107 and Carnegie Sts. Total est. $750,000.

★**O., Cleveland**—Bd. Educ., J. F. Brown, dir. Schools, 1380 E. 6 St., plans by A. R. Simon, 1380 E. 6th St., boys trade school $1,500,000; Junior High School, replacing Brownell and Central Jr. High Schools $735,000., to East Tech High School addn., etc., remodeling or addns. Outhwaite Vocational School, Outhwaite Elementary School, Kennard Jr. High School, Thos. A. Edison Vocational, Jane Addams Vocational and West Tech. $500,000. Total est. $3,335,000. Applied for Federal funds.

O., Elyria—$175,000 bond election, Nov. 4, constructing, equipping vocational school, $350,000. Seeking FWA loan.

O., Kent—Kent State University, Kent, preliminary studies by H. A. Fulton, 5716 Euclid Ave., Cleveland, industrial shop buildings, health building, presidents residence, remodeling dormitory. $300,000.

O., Marion—$200,000 bond election Nov. 4, hospital addn., remodeling present bldg., addnl. equip.

O., Oxford—Ohio Dpt. P. Wks., F. Raschig, dir., State Office Bldg., Columbus, plans by C. F. Cellarius, 906 St. Paul Bldg., Cincinnati, classroom building, Miami University. $298,000. Fosdick & Hilmer, Union Trust Bldg., Cincinnati, engrs. CD 6/25—ENR 7/3.

★†**O., Painesville**—Diamond Alkali Co., Fairport Harbor, group buildings for manufacturing magnesium. $16,000,000. Defense Plant Corp. will finance.

O., Warren—$25,000 bond election, Nov. 4 school, northwest sect. city, constructing Harding High and Willard Elementary school addns. $360,000.

†**Okla., Oklahoma City**—U. S. Eng., Tulsa, rejected bids Aug. 7, motor repair shop, storehouse, oil storage house, Will Rogers Field. Will readvertise. CD 8/1—ENR 8/7.

★**Okla., Oklahoma City**—Bd. Educ., plans by Winkler & Reid, Oklahoma Savings & Loan Bldg., vocational trades school, $852,000. Applied to PWA for funds.

Okla., Tulsa—Police bldg. addn. $230,385. Application filed with PWA.

†**Okla., Tulsa**—National Youth Admin., c/o Regional Offices, Municipal, Tulsa, air craft shops training building. $150,000.

†**Ore., Astoria**—Lewis & Clark Consolidated School Dist. 5, Clatsop Co., school addn., Docket Ore. 35-106. $18,274. **DPW.**

★†**Ore., Corvallis**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., triangular camp to accommodate 30,000 troops. $22,800,000. John W. Cunningham & Associates, and Lawrence & Allyn, Spalding Bldg., Portland, archts. and engrs. War Dpt. terminated plans for camp site at Eugene. CD 7/22—ENR 7/24.

†**Ore., Pendleton**—School Dist. 16, Umatilla Co., plans by Jones & Marsh, Woodlark Bldg., Portland, school. $150,000. FWA. CD 9/8—ENR 9/11.

Pa., Bethlehem—Bd. Educ., Bethlehem, 2 story, bsmnt., brick, concrete, steel Junior High School, Edgeboro sect. Over $200,000.

Pa., Emporium—Emporium School Dist., brick, steel, concrete school, East Ward. $150,000.

★†**Pa., Erie**—General Electric Co., 1 River Rd., Schenectady, N. Y., and Erie Wks., Erie, H. L. R. Emmet, works mgr., 200x450 ft., brick, steel, concrete plant addn., Bldg. 13, for production naval equip. for Maritime Comn. $1,470,769 for land and buildings, $5,292,811 for machinery and equip. Defense Plant Corp. will finance.

†**S. C., Beaufort**—School Dist. 1 of Beaufort Co. new school and school addn., Docket S. C. 38-106. $148,257. **DPW.** CD 8/6—ENR 8/14.

†**S. C., Beaufort**—City, recreation center, Docket S.C. 38-107. $75,000. **DPW.**

†**S. C., Columbia**—City, recreation center, Docket S.C. 38-102. $216,867. **DPW.**

†**S. C., Columbia** — City, recreation bldg., Docket S.C. 38-103. $25,653. **DPW.**

†**S. C., Columbia**—Richland Co., health center, Docket 38-108. $34,200. **DPW.**

†**S. C., Myrtle Beach**—Town, recreation center, Docket S.C. 38-114. $80,000. **DPW.**

Tenn., Chattanooga—City School Bd., Vocational High School addn. $200,000, and County High School addn. $180,000.

Tex., Abilene — Abilene State Hospital, Abilene, plans by David S. Castle Co., Abilene, dormitory. $225,000.

Tex., Big Spring—Big Spring State Hospital, plans by L. H. Gaskins, San Angelo,

PUBLIC BUILDINGS (Proposed Work, Cont'd.)

ward-chapel-recreation bldg. $220,000. CD 3/27—ENR 4/3.

†**Tex., Brownwood**—Con. Q.M., recreation camp incl. bldgs. for lodging (1,000 beds) utilities, etc., Camp Bowie, $275,000; 4 story recreation center building, utilities, Camp Bowie, $65,000.

Tex., Carthage—Bond election Sept. 22, light and power plant. $150,000.

★†**Tex., Corpus Christi**—Bd. Educ., W. B. Ray, pres., plans by Brock, Roberts & Anderson, Jones Bldg., Hedrick & Fox, Nixon Bldg., and N. W. Hardy, Nixon Bldg., 1 story, brick, concrete school, $175,000 or more; building unit for negroes and exten. 2 schools, 1 story, brick, concrete, $150,000 or more; 1 story, brick, concrete school, $175,000; Corpus Christi Ind. School Dist., plans by N. W. Hardy, Nixon Bldg., 28 room high school. $230,000. **DPW.** CD 9/10—ENR 9/18.

★†**Tex., Corpus Christi**—Corpus Christi Independent School Dist., new schools, school addns., Docket Tex. 41-144. $1,305,660. **DPW.** CD 6/9—ENR 6/12.

†**Tex., Corpus Christi**—City, health center, Docket Tex. 41-182. $100,000. **DPW.**

Tex., Denton—Bd. Educ., school. $175,000. H. Smith, c/o Allen Bldg., Dallas, engr. CD 8/28—ENR 9/4.

★†**Tex., Freeport**—Dow Chemical Co., magnesium plant, 72,000,000 lb. metallic magnesium annually. $52,000,000. Defense Plant Corp. will finance.

†**Tex., Galveston** — City, recreation center, Docket Tex. 41-107. $75,000. **DPW.**

Tex., Grand Prairie—G. H. Turner, mayor, plans by R. P. DeWitt, 1013 Praetorian Bldg., Dallas, 1 story, 110x126 ft., hospital. $156,800. Applied for DPW funds. CD 6/19—ENR 6/26.

★**Tex., Houston**—Bond election Oct. 4, tuberculosis hospital. $650,000. CD 9/3—ENR 9/11.

Tex., Kerrville—Kerrville State Sanatorium, Kerrville, plans by H. F. Kuehene, c/o Littlefield Bldg., Austin, hospital. $200,000.

Tex., Lubbock—Bd. Educ., c/o J. T. Hutchinson, Lubbock, plans by Haynes & Strange, Myrick Bldg., 1 story high school. $275,000.

Tex., Nacogdoches—Stephen F. Austin Teachers College, Nacogdoches, plans by S. Simons, c/o Citizens Bank Bldg., Tyler, brick, concrete power plant. $45,000.

Tex., Odessa—Ector Co. Ind. School Dist., c/o M. H. Fly, supt. Schools, plans by Haynes & Strange, 415 Myrick Bldg., Lubbock, 2 story, bsmnt., 30x370 ft., brick, tile, steel trusses Senior High School. $467,443. Applied for DPW funds.

†**Tex., Orange** — City, recreation center, Docket Tex. 41-180. $75,000. **DPW.**

Tex., Port Neches—Port Neches Com. School Dist. 16, c/o W. J. Holloway, supt. Schools, plans by A. Babin, 316 Perlstein Bldg., Beaumont 2 story, 141x163 ft., brick, hollow tile Grover School addn. $153,433. Applied for DPW funds.

Tex., Rusk — Rusk State Hospital, Rusk, plans by H. K. Smith, Highland Park Shop Village, Dallas, 2 story ward. $260,000.

Tex., San Angelo—San Angelo State Tuberculosis Sanatorium, San Angelo, plans by Mauldin & Lovett, San Angelo, hospital. $200,000.

Tex., San Antonio—San Antonio State Hospital, S. Presa St., plans by Adams & Adams, Insurance Bldg., hospital. $200,000. CD 8/6—ENR 8/14.

★†**Tex., Silsbee**—U. S. Eng., 20 St. and Constitution Ave. N.W., Wash., D. C., base camp for 4,500 personnel and patrol bombers, etc., incl. barracks, 3,400 acre field development, shops, hangars, utilities, etc. $12,000,000.

★**Tex., Terrell**—Terrell State Hospital, plans by S. W. Bliss, Corpus Christi, 3 ward and hospital bldgs., $390,000; main hospital, $400,000. CD 7/23—ENR 7/31.

Tex., Wichita Falls—Wichita Falls State Hospital, plans by E. F. Rittenberry & Son, Amarillo, ward and hospital bldg. $260,000. CD 7/28—ENR 7/31.

Tex., Wichita Falls—Wichita Falls Ind. School Dist., school. $375,000. $250,000 bond election soon.

Va., Christiansburg—Montgomery Co., plans by Smithey & Boynton, Roanoke, high school, Blacksburg, and Auburn School. $154,142.

†**Va., Hampton**—County School Bd., Elizabeth City County, school and school addns., Elizabeth City County, Va. 44-133. $325,000. **DPW.**

Va., Martinsville—H. L. Byrd, chn. Housing Auth. Martinsville, plans by J. Coates Carter, archt. and engr. Martinsville, 2 story brick houses for 60 families. $200,000. CD 2/7—ENR 2/13.

Va., Portsmouth—Norfolk Co., high school, at Cradock. Applied for DPW. $430,000. J. Binford Walford, 103 E. Cary St., Richmond, archt. and engr.

†**Wash., Dupont**—School Dist. 7, Pierce Co., school addn. and alterations, Docket Wash. 45-120. $190,000. **DPW.**

†**Wash., Port Orchard**—Union High School Dist. 3, Kitsap Co., high school addn., Docket Wash. 45-119. $150,000. **DPW.** CD 8/1—ENR 8/7.

†**Wash., Port Orchard**—School Dist. 10, Kitsap Co., school, Docket Wash. 45-103. $238,400. **DPW.** CD 8/21—ENR 8/28.

†**Wash., Port Townsend** — School Dist. 13, Jefferson Co., school, school addns. and imprvs., Docket Wash. 45-113. $210,000. **DPW.** CD 1/10—ENR 1/23.

★**Wash., Poulsbo**—Poulsbo Housing Auth., Poulsgo, plans by B. M. Priteca, Palomar Bldg., Seattle, 300 defense housing units. $900,000. CD 8/8—ENR 8/14.

★†**Wash., Tacoma**—Olin Corp., Alton, Ill., subsidiary Western Cartridge Co., aluminum plant. 30,000,000 lb. annual capacity. $3,900,000. Defense Plant Corp. will finance. CD 7/8—ENR 7/10.

†**Hawaii, Honolulu**—Queens Hospital, hospital addn., Docket 51-102. $350,000. **DPW.**

Man., Winnipeg—Dominion Govt., Ottawa, Ont., munition plant. $500,000. Dpt. Munitions & Supply, Ottawa, Ont., engrs.

N. S., New Glasgow—Hospital Bd., New Glasgow, general hospital addn. $250,000.

Ont., Collingwood—Wartime Housing Ltd., 55 York St., Toronto, bids soon 50 houses for Clyde Aircraft, Ltd. employees. $150,000.

Ont., Ottawa—Wartime Housing Ltd., 55 York St., Toronto, bids soon, 2 large hostels. $200,000.

BIDS ASKED

Bids Asked September 22

★†**Tenn., Maryville**—Federal Works Agency, 7 and D Sts. S.W., Wash., D. C., 250 defense houses, 200 acre tract, Thomas McCroskey Farm, 2 mi. north of here. $3,500 and $4,000 ea. CD 7/10—ENR 7/17, under Tenn., Alcoa.

Bids Asked September 23

Ill., Kankakee—9 mi. c.i. or transite water transmission line from Kankakee to Manteno. $225,000-$250,000. C. H. Hammond, Armory Bldg., Springfield, state superv. archt.

†**Md., Fort George G. Meade**—Con. Q.M., 2 regimental chapels; adv. ENR 9/18.

†**Pa., Indiantown Gap**—Con. Q.M., 4 recreational bldgs., 4 storehouses and administrative bldgs.; adv. ENR 9/18.

Bids Asked September 24

†**Ark., Piggott**—Farm Security Admin., Donaghey Bldg., Little Rock, 16 dwellings, 16 barns, other necessary bldgs. for farmsteads. $68,800.

Bids Asked September 26

N. Y., Eldred—Bd. Educ., Central School Dist. 1, towns of Highland, Lumberland and Tusten, Sullivan Co., and Deer Park, Orange Co., at office Eldred, school. H. O. Fullerton, 152 Washington Ave., Albany, archt.; adv. ENR 9/18.

†**Canal Zone**—Con. Q. M., school, Albrook Field and Howard Field.

Bids Asked September 29

Minn., Windom—M. Peterson, city clk., installing additional equip. in municipal electric power and heating plant, turbine generator unit, condenser and equip. Over $40,000 (not official). Rose & Harris, 416 Essex Bldg., Minneapolis, engrs.

Bids Asked September 30

★**Calif., Los Angeles**—Los Angeles Housing Auth., 1031 S. Bway., 185 unit housing, Hacienda Village. $733,000. Planning Associates, Architects Bldg., archts. CD 9/9—ENR 9/11.

†**Ore., Pendleton**—U. S. Eng., 628 Pittock Blk., Portland, 2 administration bldgs., paint and dope bldg., oil storage bldg., altering recreation bldg., Military Airport, Inv. 698-42-168.

Bids Asked October 1

†**Calif., Mare Island**—Pub. Wks. Officer, Mare Island Navy Yard, 20 officers quarters consisting 10 duplex quarters bldgs., Spec. 10,626.

Bids Asked About October 1 to 15

★**Ill., Springfield**—Memorial Hospital of Springfield, 5 St. and N. Grand Ave. E., plans by Burnham & Hammond, 160 N. La Salle St., Chicago. 7 story hospital, Miller and 1 Sts. $1,100,000. CD 5/22—ENR 5/29.

Bids Asked October 2

★**Calif., Fresno**—Fresno Housing Auth., 712 Mattei Bldg., housing, Tulare St. and Pottle Ave. $738,000. Lake & Horn, 909 Mattei Bldg., archts. CD 9/18.

†**N. Y., Hempstead**—U. S. Eng., 17 Battery Pl., New York, motor repair shop and oil storage house, Mitchel Field.

Wash., Bellingham — Western Washington College of Educ., Bellingham, heating plant addn., 2 heavy pressure water tube boilers. $40,000. L. Bouillon, 1411 Fourth Ave. Bldg., Seattle, engr. CD 8/30—ENR 9/12.

Bids Asked October 4

Tex., Lubbock — Texas Technological College, c/o C. H. Jones, pres., 2 story, brick agricultural bldg. $250,000. W. C. Hedrick, 1005 1st Natl. Bank Bldg., Fort Wort archts. CD 7/30—ENR 8/7.

Bids Asked Octob

Calif., Exeter—Exeter High School Dis high school addn. $175,000 Franklin Kump, Jr., T. W. Patterson Bldg., Fresn archts. CD 4/9—ENR 4/17.

Bids Asked October

Ia., Murray—Municipal light and pow plant, $100,000. A. S. Harrington, 501 Baum Bldg., Omaha, Neb., engr. CD [illegible]—ENR [illegible]

Bids Asked October

Wis., Madison — University of Wisconsi Madison, agricultural dormitory. $200,000. C. Kirchhoff, State Capitol, archt. CD 3/19—ENR 3/27.

Bids Asked

†**Mo., Robertson**—Yards & Docks, Navy Dpt 18 St. and Constitution Ave., N.W., Wash D. C., additional 1 and 2 story barracks U. S. Naval Reserve Aviation Base.

LOW BIDDERS

†**Ariz., Phoenix**—Division Defense Housin FWA, at office Lescher & Mahoney, archt and technical advisors on project, Title Trust Bldg., Sept. 8, 59 building units house 100 army men's families, Luke Field from E. W. Duhame, E. Van Buren Av **$239,990.** CD 9/3.

†**Calif., Burbank**—Menasco Mfg. Co., 805-E San Fernando Blvd., 120x120 ft. and 120x3 ft. rein.-con., steel factory addns., for Wa Dpt., from Buttress & McClellan, 1013 E. St., Los Angeles. Approx. **$125,000.** Defens Plant Corp. will finance. H. Eckart, 1015 E 8 St., Los Angeles, archt. and engr. CD 7/ —ENR 7/31.

★**Calif., Los Angeles** — Los Angeles Ci Housing Auth., 1031 S. Bway., Sept. 165 unit Avalon Gardens Housing, from E. Nesser Co., 4822 W. Jefferson Blvd. **$542,80** CD 8/28—ENR 7/17.

★**Calif., Stockton**—A. Boyd, State Archt., P Wks. Bldg., Sacramento, Sept. 3, general contract 1 story, rein.-con. Ward Bldg., for state, from Moore & Roberts, 693 Mission St San Francico, **$519,514.** CD 8/11—ENR 8/14

Calif., Wilmington—Los Angeles City Dpt Water & Power, 207 S. Bway., Los Angeles Sept. 4, furnishing, del., erecting 1,500 tons structural steel for Harbor steam plant, Spec 3902, from Bethlehem Steel Co., E. Slauson Ave., Vernon. **$403,300.** CD 8/28.

★†**Md., Curtis Bay-Fairfield** (Sta Baltimore) —Baltimore Housing Auth., 709 E. Eager St., Baltimore, Sept. 8, 500 defense housing units, Project 18097X, for USHA, from J. Slotnick Co., 91 Newbury St., Boston, Mass., **$1,480,000**. CD 9/2—ENR 9/4.

★†**Mich., Wayne**—Mutual Homes Ownershi Div. FWA, 7 and D Sts. N.W., Wash., D. C. 300 units 1 and 2 story frame housing, pla fdns., from Herbert E. Mitler, Inc., 505 5 Ave. New York, N. Y. **$1,252,000.** Burns Roensc Lee Plaza, Detroit, archt. J. McMahon, 1162 E. Jefferson Ave., Detroit, engr.

†**N. J., Metuchen** — Con. Q. M., Raritan Arsenal, Sept. 8, shipping and packing building, C.A. 6190-42-3, from Slonk Constr. Co. 32 Decker St., Elizabeth, **$179,324.** CD 8/29—ENR 9/4.

†**N. J., Raritan** and **Woodbridge**—War Dpt. 20 St. and Constitution Ave. N.W., Wash. D. C., 1 story, 60x800 ft., brick, steel shipping and packing plant, two 10x800 ft. loading platforms, Raritan Arsenal, from Slonk Constr. Co., 32 Decker Ave., Elizabeth. **$179,324.** CD 9/4—ENR 9/11.

O., Columbus—S. F. Clements, dir. P. Serv., Sept. 5, administration bldg. addn., Port Columbus airport, from Robert W. Setterlin & Son Co., 1030 W. 3 Ave. **$212,878.** CD 8/28.

★†**O., Toledo**—Toledo Metropolitan Housing Auth., A. G. Spieker, chn., 392 Nebraska Ave., Sept. 4, 212 unit, Ravine Park Village housing, Ohio 6-3, from A. Bentley & Sons Co., 201 Belmont Ave., (base contr.) **$834,834**; from J. H. Berkebile & Sons, 998 Whittier St., (low alternate bidder) **$804,200.** CD 8/28.

★†**Pa., Phila.**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N. W., Wash., D. C., Sept. 9, warehouse, Navy Yard, from Turner Constr. Co., 420 Lexington Ave., New York, N. Y., **$2,078,000.** CD 8/25—ENR 8/28.

★**Pa., Phila.**—General State Auth., 122 N. 2 St., Harrisburg, Sept. 11, general contract workers' building, from R. Z. Herzog, 1505 Race St., **$519,364*****heating, from L. F. Steadle, Kingston, **$56,950*****plumbing, from D. J. Keating, 613 S. 24 St., **$93,300*****electrical work, from Keystone Engineering Corp., 1815 Callowhill St. **$31,500.** CD 8/18—ENR 8/21.

★†**S. C., Parris Island**—Navy Dept., 18 St. and Constitution Ave., N. W., Wash., D. C., Sept. 9, 56 officers quarters, 26 at Charleston and 30 at Parris Island, from V. P. Loftis, Builders Bldg., Charlotte, N. C., **$533,000.** CD 8/20—ENR 8/28.

Wis., Manitowoc—Manitowoc Co., Sept. 6, general contract 3 story, bsmnt., brick, steel concrete asylum, from Hunzinger Constr. Co., Sta. K, Milwaukee, **$397,047*****plumbing and heating, ventilating, from J. F. Ahern, Fond du Lac, **$15,500** and **$66,000** respectively. CD 8/19—ENR 8/21.

CONTRACTS AWARDED

†Ariz., Fort Huachuca—Con. Q.M., additional barracks, mess hall, recreation units, warehouse, to Del E. Webb Constr. Co., 1633 W. Jefferson St., Phoenix, approx **$400,000.** Awarded 9/10.

★**†Ark., Fort Smith**—Con. Q.M., Armored Division Camp, near here, to A. Farnell Blair, Decatur, **$15,512,786.** CD 9/2—ENR 9/4.

†California—Bureau Reclamation, Old Post Office Bldg., Sacramento, locomotive fuel supply station, Siding 1, Southern Pacific R. R. relocation, Kenneth Div., Central Valley Project, Spec. 982, to R. G. Clifford, P. O. Box 168, South San Francisco, **$58,290.** Bids 9/4. CD 8/11—ENR 8/14.

†Calif., Fort Ord—Con. Q. M., temporary housing, to Ford J. Twaits Co. and Morrison-Knudsen Co., 816 W. 5 St., Los Angeles. **$164,938.**

★**Calif., Los Angeles** — Housing Auth. of City of Los Angeles, 1031 S. Bway., general contract Pueblo Del Rio housing, to R. E. Campbell Co., 316 E. Weber St., Compton, **$1,259,852*****plumbing, to F. C. Schilling, 3215 Beverly Blvd., Los Angeles, **$134,776*****electrical work, to Korb Electric Co., 5734 York Blvd., **$49,349*****heating, to Hammel Radiator Corp., 3366 Motor Ave., **$29,210.** USHA. Grand total $1,473,187. Bids 8/5. CD 8/11—ENR 8/14.

★**†Calif., San Diego**—Eleventh Naval Dist., foot of Bway., three 2 story barracks, 2 story recruit receiving building, 2 frame storehouses, paving, etc., Training Station, Spec. 10562, to James I. Barnes Constr. Co., 600 Central Tower Bldg., Santa Monica. **$709,500.** CD 8/21.

Calif., San Jose—San Jose Hospital, Santa Clara St., hospital addns., to C. N. Swenson Co., 355 Stockton Ave. **$150,000.** CD 9/2—ENR 9/4.

†Calif., San Miguel—Con. Q. M., barracks, mess, administration, storehouse, day room, etc., Camp Roberts, to F. C. Stolte Co., Pacific Grove, **$77,000.** CD 5/15—ENR 5/22.

†Fla., Camp Blanding—Con. Q.M., 8 wooden theatres to Means Constr. Co., 318 Duval Bldg., Jacksonville. **$407,000.** Awarded 9/4. CD 4/17—ENR 5/1.

Fla., Jacksonville—Duval Co. School System, Jacksonville 1st building unit, 180x240 ft. concrete shops bldg. with equip. for Duval County Vocational Training School, **WPA. $340,000.** Reynolds, Brenton, Smith & Hills, Duval Bldg., Jacksonville, archts. A. Salee, Jacksonville, co. engr. CD 8/28—ENR 9/4.

★**†Fla., Opa Locka**—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., barracks, oil storage bldg., etc., to Fred Howland, Inc., Postal Bldg., Miami. **$1,222,000.**

★**†Ill., Carbondale** — Sherwin-Williams Defense Corp., 635 East 115 St., Chicago, shell and bomb loading plant, Illinois Ordnance Plant. Chas W. Cole & Son, South Bend, Ind., engr. Contractor reported. CD 9/3—ENR 9/11, under CA.

Ill., Chicago—State Dpt. P. Wks. & Bldgs., 160 N. LaSalle St., general contract 1 story, 140x300 ft. machine shop, Crawford Ave. and 159 St., to Kinnare Corp., 2816 W. Monroe St. **$187,781.** C. H. Hammond, c/o owner, archt.

★**Ill., East St. Louis**—St. Clair Co. Housing Auth., E. P. Griffin, chn., L. E. Davenport, dir., Spivey Bldg., general contract and landscaping 246 low rent units, Samuel Gompers Homes, Ill.-1-1 and 161 units John Robinson Homes, Ill.-1-2, to W. E. O'Neil Constr. Co., 2751 Clybourn Ave., Chicago, **$1,112,500*****plumbing, to E. J. Maag Plumbing & Heating Co., Inc., 333 N. 5 St., **$286,528*****heating, to Belleville Sheet Metal Wks., Belleville, **$78,807*****electrical work, to Bradford Armature Wks., 1105 Missouri Ave., **$54,031.** Grand total $1,531,866. USHA. (**Correction**—prices by USHA.) Bids 8/5, awarded 9/5. CD 9/9—ENR 9/11, under CA.

Ind., New Albany—New Albany Housing Auth., E. McLinn, Elsby Bldg., general contract, plumbing, heating, electrical work, landscaping and site imprvs. 106 unit Beechwood Court housing Project Ind. 12-1, to Henke Constr. Co., 200 E. Walton St., Chicago, Ill., **$444,444.** Bids 8/8, awarded 9/8. CD 8/1.

Iowa—Iowa Hy. Comn., Ames, 150x152½ ft. machine and repair shop, State Hy. Comn. Grounds, to James Thompson & Sons, Ames. **$81,650.** Awarded 9/10.

★**†Md., Curtis Bay (Sta Baltimore)**—Baltimore Housing Auth., 709 E. Eager St., Baltimore, 300 defense housing units, Project 18096-X for USHA, to Natl. Excavation & Structures Corp., 10 East 40 St., New York, N. Y. **$1,119,000.** Bids 8/18. CD 8/20—ENR 8/28.

†Mass., Springfield—Con. Q. M., 2 story, bsmnt., 55 x 150 ft., brick, steel concrete addn. to Bldg. 28, incl. shooting range, to Casper Ranger Constr. Co., 6 Newton St., Holyoke. **$141,000.** Est. $150,000. CD 8/25—ENR 8/28.

Mich., Bloomfield Hills—Cranbrook School, 70x267 ft., brick, stone, steel, rein.-con. science bldg., arts and crafts bldg., to Charles R. Wermuth & Son, Inc., Academy Bldg. Est. **$200,000.** E. Saarenin, 1 Cranbrook Rd., archt.

†Mich., Detroit—Bohn Aluminum & Brass Corp., 1400 Lafayette Bldg., 1 story, brick, steel, cement block factory for manufacture aircraft parts for War Dpt., to Krieghoff Co., 6661 French Rd. **$40,000.** Defense Plant Corp. will finance. Buckheit & Stuchell, 904 Lafayette Bldg., archts. CD 9/2—ENR 9/4.

Mich., Wyandotte—Municipal Serv. Comn., power plant, Contr. 6, superstructure, to H. B. Culbertson Co., 2842 West Grand Blvd., Detroit. **$120,890;** Contr. 7, power wiring to Commercial Eng. Co., 1432 Holden St., Detroit. **$42,600.** CD 8/25—ENR 8/28.

Mich., Wyandotte—Municipal Service Comn., Contr. 8, power piping for municipal power plant, to General Piping Corp., 5050 Joy St., Detroit, Mich. **$57,899.** Bids 9/8. Awarded 9/11. CD 8/25—ENR 8/28.

†N. J., Cape May—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., D. C., 50 housing units, vicinity Naval Air Station, to Mathews Constr. Co., 296 Alexander St., Princeton. **$165,000.** CD 7/10—ENR 7/17.

★**†N. J., Phillipsburg**—Pub. Bldg. Admin., 9 and D Sts. S.W., Wash., D. C., 250 defense housing, to Fred D. Brotherton, Inc., 200 Main St., Hackensack, **$954,000.** Bids 7/29, awarded 9/8. CD 7/31—ENR 8/7.

★**†O., Euclid**—United States Housing Auth., F St. between 18 and 19 Sts., N. W., Wash., D. C., defense housing, to Schirmer-Peterson Co., 6830 Beaver Ave., Cleveland, **$2,000,000.** Bids 8/25, awarded 9/5. CD 9/4—ENR 9/11.

★**†Okla., Fort Sill**—Con. Q.M., maintenance shops, warehouses, water lines, sanitary sewers, etc., for repairing motor equip., to W. R. Grimshaw, Philtower Bldg., Tulsa. **$860,000.**

†Pa., Allentown—National Youth Admin., 15 St. and New York Ave., Wash., D. C., 1 story, concrete vocational training school, own forces, separate contracts. Est. **$88,000.** CD 9/2—ENR 9/4.

†Pa., Farrell—National Youth Admin., 15 St. and New York Ave., Wash., D. C., 1 story, 40x112 ft. steel, concrete vocational shop, Idaho St., own forces under supervision J. F. Megan, constr. contractor, Farrell. Est. **$75,000** incl. equip.

★**†Pa., Phila.**—Mutual Home Ownership Defense Housing Div. of FWA, 7 and D Sts. S.W., Wash., D.C., 1,000 homes for defense workers, north of Pennypacker Park, to M. Shapiro & Son, 755 7 Ave., New York, N. Y. **$3,664,750.** (**Correction**—owner). CD 8/27—ENR 9/4, under CA.

★**†Pa., Phila.**—War Dpt., 20 St. and Constitution Ave. N. W., Wash., D. C., Small Arms, Ammunition Dpt. Office Bldg. 110, 2 warehouses, Frankford Arsenal, to Hughes-Foulkrod Co., Schaff Bldg., **$577,800.**

★**†R. I., Newport**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N. W., Wash, D. C., 5 temporary storehouses, operating base, Contr. No. 4398, to Gilbane Building Co., 90 Calverley St., Providence, **$656,000.**

★**Tex., Dallas**—Dallas Housing Auth., 2525 Lucas Dr., 234 unit, Frazier Courts housing, Tex. 9-5, to A. J. Rife Constr. Co., 2808 Inwood Rd., approx. **$806,000.** USHA. Bids 9/8. CD 8/20—ENR 8/28.

Tex., Kilgore — Kilgore College, 2 story, brick, concrete school unit, gymnasium, shop, class bldg., to C. S. Lambie Constr. Co., Amarillo, approx. **$219,000.**

Tex., McAllen—H. Etchinson, mayor, 40 x 140 ft., prefabricated steel, concrete mechanical work shop, etc. NYA labor. **$40,000.**

Tex., Raymondville—H. Bostick, mayor, 1 story, concrete mechanical shop, NYA labor. **$40,000.** J. E. Portman and K. Lindahl, c/o City, engrs.

†Tex., San Antonio—U. S. Eng., Santa Fe Ry. Bldg., Galveston, supplemental contract housing construction, Air Corps Cadet Replacement Center, Kelly Field, to Christy & Baskett, Builders Exch. **$475,374.** Additional to CD 7/2—ENR 7/10, under CA.

★**†Tex., Wichita Falls**—Pub. Bldgs. Admin., 9 and D Sts. S.W., Wash., D. C., 175 housing units, No. 41121, to Thomas Bate & Sons, 1107 Girard Ave., Houston. **$649,683.** CD 9/4—ENR 9/11.

★**†Va., Alexandria**—War Dpt., 20 St. and Constitution Ave. N. W., Wash., D. C., office bldg., Columbia Rd. and Highway 1, near here, to Doyle & Russell, Central Natl. Bank Bldg., Wise Contg. Co., 122 N. 8 St., both Richmond, and John McShain Inc., 17 and Spruce Sts., Phila., Pa., **$35,000,000.** Proposal to building near Arlington Cemetery abandoned. CD 7/29—ENR 7/31, under Arlington.

★**†Va., Camp Lee**—Con. Q.M., motor repair shops, 12 class room bldgs., also 23 buildings, to James I. Barnes Constr. Co., Logansport, Ind. **$527,137.** CD 7/2—ENR 7/10.

†Va., Fort Eustis—Federal Works Agency, 7 and D Sts., S.W., Wash., D. C., 75 dwellings, to Allied Housing Associates, Langhorne, Pa. **$214,583.**. CD 7/30—ENR 8/7.

Wis., Neillsville—Clark Co., 1 story, 80x100 ft. shop-garage bldg. with 24x50 ft. wing, brick, steel, day labor. H. M. Nelson, 204 E. Grand Ave., Eau Claire, archt. O. J. Weyhmiller, Neillsville, engr. CD 7/1—ENR 7/10.

†T. H., Schofield Barracks—Con. Q.M., 74 New Montgomery St., San Francisco, Calif., and Fort Shafter, T. H., 40 non-commissioned officers quarters, to E. E. Black, Ltd., Honolulu. **$459,980.** Bids 8/29, awarded 8/30. CD 8/21.

Ont., Ottawa—Dpt. P. Wks., Ottawa, special explosive building for National Research Council, to Henri Dagenais, Ltd., 186 St. Patrick St. **$62,700.** Bids 8/26. CD 8/12—ENR 8/14.

Ont., St. Catherines—Wartime Housing Ltd., 55 York St., Toronto, 100 demountable frame dwellings, to Redfern Constr. Co., Ltd., 36 Toronto St., Toronto, about **$180,000.** CD 8/28—ENR 9/4.

Ont., Weston—Dpt. Natl. Defense for Ottawa, Ottawa, core factory, to Redfern Constr. Co. Ltd., 36 Toronto St., Toronto. **$400,000.**

Que., Hull—Wartime Housing, Ltd., 55 York St., Toronto, Ont., 100 dwellings, to H. F. McLean, 144 St. Catherine St., W., Montreal. **$300,000.** CD 8/5—ENR 6/26.

COMMERCIAL BUILDINGS

PROPOSED WORK

Ark., Fort Smith—Church of Immaculate Conception, plans by Haralson & Mott, Mer. Natl. Bank Bldg., Fort Smith. St. Edward's Mercy Hospital addn. $150,000. CD 7/30—ENR 8/7.

Calif., Long Beach—J. M. Lenney Co., 1360 Newport Ave., plans by W. Wollett, 816 Architects Bldgs., Los Angeles, 80 dwellings, Bixby Highlands Ave. $320,000.

Conn., Fairfield—Fairfield Land & Title Co., 1333 Post Rd., residential development, Verna Farms, Greenfield Hill. Over $150,000.

Ill., Chicago—Illinois Institute of Technology, 3300 S. Federal St., plans by Holabird & Root, 333 N. Michigan Ave., 3 story, 60x150 ft. metallurgical research bldg., 32 and State Sts. $150,000 or more.

★**Ill., Glenview**—H. Arnum, Harlem Park Subdivision, Glenview, 85 homes. $600,000.

Ill., Maywood—Paramount Pictures, Inc., Maywood, B. Balaban, pres., plans by C. W. and Geo. L. Rapp, Inc., 230 N. Michigan Ave., Chicago, motion picture theatre. $225,000.

Ill., Momence—American Boys Town, c/o Mrs. C. E. Howard, 160 N. La Salle St., Chicago, plans by C. W. Nichol, 59 E. Van Buren St., Chicago, 1 and 2 story bldgs. for "Boys Town" for negro youth. $150,000.

Ia., Sioux City—Tri States Theatres Corp., 800 Paramount Bldg., Des Moines, D. W. Shane, local mgr., altering, remodeling Capital Theatre bldg. $150,000.

Mass., Pittsfield—St. Joseph's R. C. Parish, C. L. Foley, pastor, 414 North St., plans nearing completion by J. R. Hampson, 30 Backman Ave. and bids about October, 16 room, brick, stone parochial school. $250,000. CD 9/8.

Mass., Saugus—Owner, c/o J. J. Bucchiere, 254 Lincoln Ave., sketches 600 houses, Newburyport Turnpike. $150,000. FHA.

Mich., Detroit—Estate of Henry Barbour and Detroit Trust Co., 1702 Buhl Bldg., plans by Hyde & Williams, 3105 E. Grand Blvd., 2 and 3 story, brick, steel, stone, rein.-con. theatre and store building addns., Woodward Ave. $150,000.

Mich., Muskegon—Campbell, Wynant & Cannon Fdry. Co., Muskegon, plans by Jensen & Keough, 3757 Gladstone Ave., Detroit, 1 story, 80x400 ft., brick, steel, rein.-con. office bldg., plain fdns. $150,000.

Mont., Helena — Fox-Intermountain Theatre Corp., 729 N. Warren St., plans by W. F. Owens, Sheridan, Wyo., and bids soon 1 story, 125x120 ft., rein.-con. theatre. $200,000.

N. Y., Long Island City—Laurel Hill Apartments, Inc., 1914 85 St., Brooklyn, plans by Cohn Bros., 191 Joralemon St., Brooklyn, 6 story apartment, 43-07 39 Pl. $180,000.

O., Cleveland—City Farm Homes, Inc., M. Helper, 734 National City Bldg., 26 frame houses. $150,000.

O., Columbus—Aberdeen Realty Co., 42 E. Gay St., plans by Aberdeen Realty Co., 42 E. Gay St., 47 one story homes. Weber Rd. and Manchester Ave. $190,000.

Pa., Wilkes-Barre—S. Z. Moskowitz, archt., Meyer Bldg., soon lets contract 3 story, bsmnt. store, 26-28 S. Main St., for The Hub, Inc., J. L. Hirshowitz, pres., Public Sq. $150,000.

Tex., San Antonio—Sisters of Charity of the Incarnate Word, 4701 Bway., 5 story, bsmnt., brick, tile nurses home annex, Santa Rosa Hospital. $175,000. L. M. J. Dielmann, 145 North St., archt.

★**Va., Petersburg**—J. Gordon Bohannon, pres. Petersburg Hospital, community hospital. $570,000. E. C. Flannagan, Henderson, N. C., archt. Application filed for DPW grt. CD 2/19—ENR 2/27.

Wis., Madison—Credit Union National Assn. 1342 E. Washington Ave., plans by Law, Law & Potter, 1 S. Pinckney St., archts. office bldg., 1603 Sherman Ave., $150,000.

Wis., Waukesha—Carroll College plans College Union Bldg.

BIDS ASKED

Bids Asked September 23

Mass., Northampton—Cooley Dickinson Hospital, 30 Locust St., 1 story, bsmnt., brick, COMMERCIAL BLDGS. (Bids Asked, Cont'd.)

steel, hospital addn. $150,000. J. William Beal Sons, 185 Devonshire St., Boston, archts.

Ill., Chicago—Mays & Mays, archts., 53 W. Jackson Blvd., 2½ story funeral home, Madison and Mason Sts., for Hursen Undertakers, Inc., 2346 W. Madison St. $200,000.

CONTRACTS AWARDED

Calif., Richmond—J. B. Corrie, 2027 Macdonald Ave., 1 story, wood frame home development, day labor. Total expenditure over **$150,000.**

Calif., San Francisco—J. Arnott & Son, 633 Taraval St., 1 story, bsmnt., wood frame home development, Vicente Dist. area (Sunset) day labor. Over **$150,000.**

Calif., San Rafael—Albert's Inc., San Rafael, 2 stoyr, bsmnt., rein.-con. department store, to Leibert & Trobock, Albert Bldg. **$150,000.** CD 3/24—ENR 4/3.

Conn., Danbury—Southern N. E. Telephone Co., 157 Church St., New Haven, 2 story, bsmnt., 65x135 ft., brick, steel, stone telephone exchange bldg., dial sys., to Edwin Moss & Son, Inc., 555 Grant St., Bridgeport. Est. **$150,000.** D. Orr, 96 Grove St., New Haven, archt. Hubbard, Rickerd & Blakeley, 275 Orange St., New Haven, engr.

Conn., North Haven—J. J. Daley, 165 Main St., West Haven, 1½ and 2 story homes, Maple Ave. Owner builds **$150,000.** G. B. Wyland, 30 Ashmun St., New Haven, archt.

D. C., Wash.—Fairfax, Inc., Chandler Bldg., 13 apartment bldgs. in addn. to Fairfax Village, Southern and Pennsylvania Aves., to A. Lloyd Goode, 1427 I Sts. N.W., **Est. $306,000.** W. N. Denton, Jr., 1719 I Sts. N.W., archt.

Ind., Gary—Illinois Bell Telephone Co., 212 W. Washington St., Chicago, Ill., 2 story exchange, Ridge Rd. and Washington St., to M. Gerometta, Inc., 515 Bway. Est. about **$150,000.** Holabird & Root, 333 N. Michigan Ave., Chicago, Ill., archts. CD 8/25—ENR 8/28.

Ky., Covington—F. W. Woolworth Co., T. B. Owens, in charge, Leader Bldg., Cleveland, O., 3 story, brick, steel, concrete store, to Brown Constr. Co., 1900 Euclid Bldg., Cleveland, O. Est. **$300,000.** R. Mackey, c/o owner, archt. CD 7/3—ENR 7/10.

Mo., St. Louis—R. Decker, 4146 Haven St., four 1 story, 30x41 ft. and twelve 1½ story, 24x44 ft. dwellings, ten 2 story, bsmnt., 34x44 ft. 4-family flats, stone fdns., also 10 garages, 4500 block of Wabash Ave. and 6300 block Sutherland Ave., own forces and sub-contracts. Approx. **$265,000.**

★**N. J., Fort Lee**—Rosen Constr. Co., 228 W. 58 St., New York, 1½ story, bsmnt., brick veneer and shingle homes. Owner builds. **$800,000.** C. Wood, Brookside Ave., Merrick, N. Y., archt. CD 8/28—ENR 9/4.

N. Y., Brooklyn—Rondin Realty Corp., 843 Linden Blvd., 6 story, 100x132 ft. apartment, 778 St. Marks Ave., separate contracts. **$225,000.** O. I. Silverstone, 153 Pierrepont St., archt. CD 9/3—ENR 9/11.

N. Y., Brooklyn—Waxbro Realty Corp., 188 Mackenzie St., 16 two family homes, Quentin St. Owner builds. **$160,000.** O. I. Silverstone, 153 Pierrepont St., archt.

N. Y., Long Island City—B. Monte, 44 Court St., Brooklyn, 6 story apartment 49-11 Skillman Ave., separate contracts. **$350,000.** M. Hirsch, 44 Court St., Brooklyn, archt. CD 8/26—ENR 8/28.

N. Y., New York—Mount Hope Realty Corp., 750 Grand Concourse, 6 story, 95x109 ft. apartment, Mt. Hope Pl. near Walton Ave. separate contracts. **$200,000.** J. M. Felson, 250 W. 57 St., archt. CD 9/5—ENR 9/11.

N. Y., Port Jefferson—St. Charles Hospital for Crippled Children, Prospect St., Port Jefferson, 2½ story, 55x160 ft., brick, stone, rein.-con. chapel, to Tang Jorgensen & Sons, Huntington. Est. **$175,000.** Bids 6/12. CD 6/6—ENR 6/12.

O., Cleveland—Y.M.C.A., C. V. Thomas, genl. secy., 2200 Prospect Ave., 60x120 ft., brick, rein.-con. dormitory clubhouse, to Alger-Rau, Inc., 12434 Cedar Rd. Est. **$150,000.** CD 7/30—ENR 8/7.

Pa., Phila.—Major Constr. Co., Ogontz Ave., residences, Overlook Hill sect. near here. Owner builds. **$150,000.**

★**Pa., Pottstown**—G. M. and M. W. James, West Lawn, Reading, 200 residences. Owner builds. Over **$500,000.** CD 8/11—ENR 8/14.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Ark., Hot Springs—MILLS, etc.—Wright-Droughton Lumber Co., rebuilding sawmill, planing mill, kilns, storage shed, destroyed by fire. $75,000.

Calif., Los Angeles—MARKET—University of Southern California, Westwood, soon lets contract market, 3rd St. and Fairfax Ave. $160,000. R. H. Crawford, 9397 Wilshire Blvd., Beverly Hills, archt.

Colo., Denver—FACTORY—Colfax Pressed Brick Co., Mining Exch. Bldg., plans by J. R. Musick, 1st Natl. Bank Bldg., 1 story, 33x412 ft., steel truss factory.

Conn., Bridgeport—PLANT—W. Ginsberg, archt., 331 Madison Ave., New York, N. Y., soon lets contract 2 story, 100x105 ft., brick publishing plant addn. for Bridgeport Herald Corp., 299 Lafayette St. Over $40,000. CD—8/8—ENR 8/14.

Conn., New Canaan — PLANT — Fitzhugh Green, Kings Highway, sketches by N. Bochicchio, 4 Prosect St., emergency lighting plant and bldgs., Kings Hy. $44,000.

Conn., New Haven — WAREHOUSE — I. Richmond, archt., 248 Boylston St., soon lets contract 2 story, bsmnt., 70x100 ft., brick, glass brick, steel warehouse, for New Haven Tobacco Co., 158 State St. $50,000.

Conn., Portchester — WAREHOUSE — Life Savers, Inc., G. W. Posthill, mgr., N. Main St., St., 2 story, bsmnt., brick warehouse, Davis and Riverdale Aves., East Portchester. $62,000. Lockwood Greene Engineers, Inc., 10 Rockefeller Plaza, New York, N. Y. engrs.

Conn., Stamford—FACTORY—Andrew Industries, Inc., 396 Pacific St., brick, steel factory, $65,000.

Conn., Waterbury—FACTORY—American Brass Co., Main St., completing plans 1 story, 75x110 ft., brick, steel factory addn. $40,000.

Ill., Chicago—FACTORY—Chas. Bruning Co., 4700 W. Montrose St., plans by V. L. Charn, 141 W. Jackson Blvd., 2 story factory addn. $85,000.

Ill., Chicago—ROLLING MILL—Owner, c/o Rawson & Eisenberg, archts., 4930 W. Adams St., 1 story, 75x400 ft., steel rolling mill, vicinity 51 St. and Kedzie Ave. $150,000 or more.

Ill., Chicago — FREIGHT TERMINAL — Viking Freight Co., 614 S. 6 St., St. Louis, Mo., plans by Quinn & Christensen, 360 N. Michigan St., freight terminal bldg. S. Oakley and S. Bell Aves. $150,000.

Ia., Shenandoah—WAREHOUSE—Mt. Arbor Nurseries 1 story, 120x155 ft., tile warehouse. $50,000.

Kan., Kansas City—FACTORY—Fruehauf Trailer Co., Fairfax Dist., 1 story, 180x1500 ft. factory addn. Over $40,000.

★**Ky., Lexington**—GENERATING PLANT—Kentucky Utilities Co., 1st Natl. Bank Bldg., bids soon general contract steam-electric generating lpant, 25,000 kw. capacity, Kentucky River. $3,000,000. Excavating and grading work, to Codell Constr. Co., Winchester. CD 11/12—ENR 11/14.

Ky., Paris—MILL—Hansley Mills, Inc., S. Levy, pres., Barnesville, O., 1 story textile mill. $40,000 incl. equip.

Me., Dover-Foxcroft — FACTORY — Owner, c/o I. C. Trufant, town mgr., Town Hall, sketches brick, steel airplane factory. Over $40,000.

Md., Baltimore—STORAGE—Crown Cork & Seal Co., soon lets contract 1 story, 180 x 180 ft., brick concrete, Cork Storage Bldgs. 103, 104, 105 and 106. $50,000 ea. L. R. White, Jr., 10 E. Chase St., archt.

Mich., Detroit—ENGINE TEST—Continental Motors Corp., 12801 E. Jefferson Ave., plans by Giffels & Vallet, archts. and engrs., 1,000 Marquette Bldg., 1 story, brick, steel, rein.-con. engine test bldg. addn. Approx. $100,000.

Mich., Detroit—GARAGE—Detroit Creamery Co., 3333 Grand River, plans by Norman Krecke, 904 Marquette Bldg., 1 story, 55 x 130 ft. brick, steel, concrete garage. $40,000.

Mich., Detroit — FACTORY — Detroit Waste Works, Bryden Ave., plans by R. H. Newbrecht, 233 John R. St., brick, steel factory, plain fdn. $50,000.

Mich., Pontiac—MACHINE SHOP—Yellow Truck & Coach Mfg. Co., South Blvd., preparing plans 1 story, 36 x 208 ft., brick, steel machine shop. $50,000. R. Wenzel, plant engr.

Mich., River Rouge—FOUNDRY—Ford Motor Co., Schaeffer Rd., Dearborn, plans by Giffels & Vallet, Inc., 1000 Marquette Bldg., Detroit, 1 story, brick, steel, rein.-con. foundry, plain and pile fdn. Over $100,000. CD 1/8—ENR 1/16.

N. C., Durham—BUS TERMINAL—J. M. Edwards, archt., 102 W. Harrett St., Raleigh, soon lets contract bus terminal, Main and Dillard Sts., for J. A. Buchanan, Carolina Coach Co., lessee. CD 9/4—ENR 9/11.

N. J., Garfield—FACTORY—Heyden Chemical Corp., 290 River Rd., plans by A. Hoenicken, 349 9 Ave., Paterson, expansion, alterations present bldg., new storage and manufacturing bldgs.

O., Canton — FACTORY — Diebold Safe & Lock Co., Mulberry Rd. S.E., bids in 30 days, 65x200 ft., steel factory addn. $40,000-$50,000.

O., Cleveland—BUS TERMINAL—Central Greyhound Lines, Inc., R. W. Budd, res., Cicero, plans by Wischmeyer, Arrasmith & Elswick, Heyburn Bldg., Louisville, Ky., 2 story, brick, concrete bus terminal. $200,000. (**Correction**-location of project). CD 7/25—ENR 7/31 under Ohio City.

O., Cleveland—FACTORY, etc.—Cleveland Cap Screw Co., J. W. Fribley, pres., 2917 E. 79 St., 1 story, 131x200 ft. brick, steel factory and storage bldg. $60,000. H. M. Morse Co., 1500 E. Superior Ave., engrs.

★**O., Toronto**—POWER STATION—Ohio Edison Co., 47 N. Main St., Akron, 40,000 kw. station to power sta., on Ohio River. $3,600,000.

O., Youngstown—PLANT—Youngstown Sheet & Tube Co., Stambaugh Bldg., sintering plant. Over $100,000.

Okla., Claremore—PLANT—Car[illegible] Chemical Co., 307 N. Michigan Blvd., Chicago, Ill., potassium perchlorate plant. $2[illegible]00.

Ore., Roseburg — PLANT — Roseburg Plywood Co., c/o H. A. O'Neill, Hoge Bldg., Seattle, plywood plant, on 600 acre site near here with 75 acre community log pond. Over $40,000.

Pa., Pittsburgh—WAREHOUSE, etc.—Francis H. Leggett & Co., 1213 Galveston Ave., warehouse and distr. plant addn. $50,000.

Pa., Port Trevorton—MILL—[illegible] R. Ulsh, Port Trevorton, flour-feed mill, poultry hatchery, etc. $40,000.

★**Pa., Sharon**—SHOP, etc.—Westinghouse Electric & Mfg. Co., Sharon, shop, 4 story laboratory office building, 160x1,1[illegible] ft. factory. $1,800,000.

Pa., Titusville — PLANT — Titusville Iron Wks. Co., 1 story, brick, steel, concrete plant addn. Over $50,000.

R. I., Providence—POWER PLANT—Nicholson File Co., 23 Acorn St., 1 story, 50x120 ft., brick, steel, rein.-con. power plant, Acorn St. $50,000. Jenks & Ballou, 2600 Industrial Trust Bldg., engrs.

Tenn., Memphis—PLANT—Sefton Fibre Can Co., 3275 Big Bend Rd., St. Louis, Mo., remodeling imprv., enlarging building, 230 West Georgia St. $300,000.

Tex., Corpus Christi—GARAGE STORAGE, etc.—R. West, c/o Nixon Bldg., plans by Hamon & Co., Jones Bldg., 2 story, 150x150 ft., garage storage and service bldg. $40,000.

Tex., Harlingen—WAREHOUSE, etc.—Southwest Sash & Door Co., 418 N. Commerce St., 1 story, 80x260 ft. and 40x260 ft. hollow tile warehouse and display bldg. $50,000.

Vt., Brattleboro — FACTORY — American Optical Co., 14 Mechanic St., Southbridge, factory. $300,000.

★**Va., Franklin**—PAPER PLANT—Chesapeake-Camp Corp., Franklin paper plant. $500,000.

B. C., Marpole—MILL—Burke Lumber Co., Ltd., Marpole, mill. $50,000.

Man., Rathwell — GRAIN ELEVATOR — United Grain Growers, Ltd., Rathwell, bids soon grain elevator. About $40,000.

N. B., Saint John—WAREHOUSE, etc.—International Harvester Co. of Canada, Ltd., Sherman Ave., Hamilton, Ont., warehouse and showroom. $135,000.

Ont., Hamilton—WAREHOUSE, etc.—International Harvester Co. of Canada, Ltd., Sherman Ave., bids soon warehouse and showroom. $215,000.

Ont., Niagara Falls—PLANT—Canadian National Railways, B. Wheelwright, ch. engr., Union Station, Toronto, soon lets contract two 1 story, 25x150 ft. car department bldgs. About $75,000.

Ont., Ottawa—WAREHOUSE—International Harvester Co. of Canada, Ltd., Sherman Ave. N., Hamilton, bids soon warehouse and showroom. $215,000.

Ont., Toronto—PLANT—Sproatt & Rolph, archts., 1162 Bay St., bids soon altering, constructing plant addn. for Ralph Clark Stone, Ltd., 204-03 Carlow Ave., Toronto. $50,000.

Ont., Toronto—PLANT—Marani & Morris, archts., 46 Bloor St. W., soon lets contract 3 story plant addn., Pears Ave., for Geo. H. Hees & Son Co., Ltd., 276 Davenport Rd. $75,000. CD 8/4—ENR 8/14.

Ont., Toronto—PLANT—Ritchie & Co. Ltd., 290 W. Richmond St., plans by M. Brown, 622 Confederation Bldg., 2 story, brick, structural steel plant exten., concrete fdn. $40,000.

Ont., Toronto—PLANT—Swift Canadian Co. Ltd., St. Clair Ave. W., bids soon altering plant, equip. $65,000.

Ont., Toronto—WAREHOUSE—W. Ralston, archt., 16 Rowanwood Ave., bids soon 2 story, bsmnt., 90x200 ft., brick, steel warehouse, King and Peter Sts., for Wm. Halliday & Son, 271 Forest Hill Rd. $70,000.

Ont., Windsor—PLANT—Chrysler Corp. of Canada, Ltd., 300 Tecumseh Blvd., plant exten., LaCroix St. $50,000.

Ont., Woodstock — PLANT — Holman Machines, Ltd., manufacturing plant. $40,000.

Que., Montreal—WAREHOUSE, etc.—Casgrani & Charbomeau, Ltd., 30 St. Paul St. E., plans by Ludger & Venne, 3807 St. Denis St., 7 story, 75x130 ft., rein.-con., stone, brick, terra cotta warehouse and office bldg.

Que., Montreal—MAIL ORDER—H. S. Labelle, archt., 3 Kelvin Ave., Outremont, bids soon mail order bldg., for Dupuis Freres, Ltd. 865 Catherine St. E. $100,000.

Que., Montreal—MACHINE SHOP—Engine Works Ltd., 318 Ann St., plans by E. J. Turcotte, 1010 St. Catherine St. W., 2 story, 35x100 ft., brick, steel machine shop, etc., concrete fdn. $45,000. CD 9/4.

Que., Montreal — MILL — Maxwell & Pitts, archts., 1159 Beaver Hall Sq., soon let contract planing mill addn., St. Ambrose St., for E. J. Maxwell, Ltd., 5080 St. Ambrose St. $54,000.

Que., Montreal — PLANT — Perry, Luke & Little, archts., 1405 Bishop St., bids soon, plant exten. for Oxygen Co. of Canada, Ltd., 2549 St. James St. W. $75,000.

Que., Montreal—PLANT—Ross & Macdonald, archts., 1010 St. Catherine St. W., bids soon plant addn. for Ronalds Co., Ltd., 6306 Park Ave. $50,000.

INDUSTRIAL BLDGS. (Proposed Work, Cont'd.)

Que., Sherbrooke—GRAIN ELEVATOR, etc.—Geo. St. Pierre, 9 Belvedere St. S., grain elevator and office. **$60,000.**

Sask., Regina—WAREHOUSE—Van Egmont & Storey, archts., 1013 McCallum Hill Bldg., bids soon 2 story, 40x134 ft., rein.-con., brick, warehouse for Imperial Oil, Ltd., McCallum Bldg., Winnipeg, Man. $55,000.

Sask., Reserve—SAW MILL, etc.—The Pas Lumber Co., Ltd., The Pas, Man., saw mill, power house. $75,000

Mass., Pittsfield—TRANSFORMER PLANT—General Electric Co., Morningside St., 1 story, 110 x 210 ft., brick, steel transformer plant. $162,000.

Mass., West Boylston—PLANT—Shell Oil Co., O. D. Faries, 49 W. 49 St., New York, N. Y., oil terminal bulb plant. $50,000. Gilbert Miles Ramsey, 50 W. 50 St., New York, N. Y., archt.

BIDS ASKED

Bids Asked About September 22

S. D., Sioux Falls—WAREHOUSE—John Morrell & Co., Ottumwa, Ia., warehouse. $115,000. Henscheim, Everds & Crombie, 59 E. Vanburn St., Chicago, Ill., archts. CD 9/8—ENR 9/11.

Bids Asked

N. Y., Olean—BUS TERMINAL, etc.—J. Magnano, Olean, bus terminal and garage, S. Barry St. $40,000 with equip. CD 7/21—ENR 7/24.

CONTRACTS AWARDED

Calif., Inglewood — LABORATORY — North American Aviation, 5701 Imperial Hy., 75x170 ft., frame plaster, laboratory and wind tunnel, 5701 Imperial Hy., to Austin Co., 777 E. Washington Blvd., Los Angeles, approx. **$75,000.** A. E. Schmidt, 777 E. Washington Blvd., Los Angeles, engr.

Calif., Los Angeles — FACTORY — Kraft Cheese Co., 1001 E. 60 St., 2 story, 80x120 ft. factory, 917 E. 60 St., to Campbell-Lowrie-Lautermilch Corp., 1001 E. 60 St. Approx. **$85,000.** Hunt & Chambers, 408 S. Spring St., archts.

Calif., Los Angeles—MARKETS—Safeways Stores, Inc., 1925 E. Vernon Ave., Vernon, 75x105 ft. and 50x100 ft. markets, 8207 S. Western Ave. and 2377 W. Pico Blvd., to G. H. Whyte, Jr., 1870 Carlisle Dr., San Marino, approx. **$44,500.** E. P. Eiden, 106 E. Wilson St., Glendale, archt.

Calif., San Francisco—PLANT—Rees Blow Pipe Mfg. Co., 340 7 St., plant addn., to R. A. Helegisson, 2695 23 Ave. **$40,000.**

Calif., San Francisco — PLANT — K. Theill, engr., 580 Market St., rein.-con., brick meat packing plant addns., for Safeway Stores, Inc., Wisconsin and 18 Sts. to Cahill Bros., 206 Sansome St. **$46,500.** Bids about 8/6.

Calif., San Mateo—PLANT—E. Enten, Middle Ave. and Harbor Rd., bag plant, day labor. **$40,000.**

Conn., Bridgeport—PLANT—Jennings Bros. Mfg. Co., E. S. Jennings, pres., 219 Elm St., sketches repairs, imprvs., remodeling brick, steel plant, Elm St., damaged by fire. $40,000.

Conn., Warehouse Point—SERVICE — Connecticut Light & Power Co., 49 Leavenworth St., Waterbury, 1 and 2 story, 110x120 ft., brick, concrete garage and service bldg., to W. J. Megin, 51 Elm St., Waterbury. Est. **$50,000.**

Conn., Waterbury—GAS PLANT—Connecticut Light & Power Co., 49 Leavenworth St., 1 story, 25x65 ft., steel, concrete gas plant. Owner builds. Steel, to Berlin Constr. Co., Depot Rd., Berlin.

Ga., Newnan—BOTTLING PLANT—Coca Cola Bottling Co., 864 Spring St. N.W., Atlanta, 1 story, rein.-con., brick, hollow tile bottling plant, to L. Prater, Gainesville. About **$75,000.**

★**Ill., Aurora**—PLANT—Western United Gas & Electric Co., 50 Fox St., substructure and fdns. for power plant addns. and alterations, to Abell-Howe Co., 530 W. Jackson St., Chicago. Total est. **$500,000.** Bids about 6/16. CD 5/28—ENR 6/5.

Ill., Chicago—FACTORY — Clearing Industrial Dist., 6455 S. Central Ave., 1 story factory, 4150 N. Knox Ave. Owner builds. **$100,000.** Continental Radio & Television Co., 3800 W. Courtland St., lessee. J. S. Cromelin, c/o owner, archt. M. Rosner, 201 N. Wells St., engr.

Ill., Chicago—PLANT—Neely Printing Co., 871 N. Franklin St., 1 story, 100x110 ft. printing plant addn., to Mutual Contg. Co., 2532 Warren Blvd. Est. **$40,000.** Thielbar & Fugard, 520 N. Michigan Ave., archts.

Ill., Chicago — PLANT — Nubian Paint & Varnish Co., 1856 N. LeClaire Ave., 1 story, 60x120 ft. plant addn., 5117 Moffatt St., to E. I. Leander Co., 228 N. LaSalle St. Est. **$70,000.** N. Ronneberg, 5050 W. Grand Ave., archt.

Ill., Chicago — FACTORY — Whitaker Mfg. Co., 409 S. Green St., 1 story, 90x355 ft. factory, 5719 W. 65 St., to Master Contractors, 175 W. Jackson Blvd. Est. **$75,000.** R. W. Statt, 3005 W. 95 St., archt.

Ill., Glenview — PLANT — Baxter Laboratories, 923 Waukegan Rd., 1 and 2 story plant and laboratory addn., to Freevol-Smedberg Co., 5950 W. Erie St., Chicago. Est. about **$75,000.** Battey & Childs, 231 S. La-Salle St., Chicago, archts.

Ill., Northbrook—FACTORY—M. B. Austin Co., 108 S. Des Plaines St., Chicago, 1 and 2 story, 90x150 ft. factory, to Powers Constr. Co., 212 S. Marion St., Oak Park. Est. **$50,000.** CD 8/28—ENR 9/4.

Ill., North Chicago—PLANT—Abbott Laboratories, Inc., 2 story, 180x200 ft. pharmaceutical plant addn., to Wm. E. O'Neil Constr. Co., 2751 N. Clybourn Ave., Chicago. Est. **$250,000.** Engineering Systems, Inc., 221 N. La Salle St., Chicago, archt.

★**Ill., Waukegan**—PLANT—American Steel & Wire Co., 208 S. La Salle St., Chicago, fdns. for plant addns., to R. Borregard, 1305 W. Grand Ave.; structural steel, to American bridge Co., 208 S. La Salle St., Chicago, Ill. Total est. **$10,000,000** incl. equip. CD 6/26—ENR 7/3.

Ia., Waterloo—PLANT—Rath Packing Co., Waterloo, seventh story annex to sausage and canning dpts. bldg., to Wildes Constr. Co., Waterloo. Est. **$40,000** with equip. CD 9/8—ENR 9/11.

Mass., Waltham—BOILER PLANT—Judson L. Thomson Mfg. Co., South St., 1 story, bsmnt. 55x64 ft., brick, steel, concrete boiler plant, to McDonald & Belbin, 88 Broad St., Boston. Est. **$40,000.** Bids 9/2. CD 8/28—ENR 9/4.

Mich., Detroit—PLANT—Briggs Mfg. Co., 11631 Mack Ave., 44x122 ft., steel frame, brick, concrete body manufacturing plant, plain fdn., to W. E. Wood Co., 4649 Humboldt Ave. Est. **$40,000.**

Mich., Detroit—POWER PLANT—Chrysler Corp., Massachusetts Ave., Highland Park, superstructure 1 and 2 story, brick, steel, rein.-con. power plant, to W. E. Wood Co., 4649 Humboldt Ave. Est. **$50,000.** Metropolitan Device Corp., 1250 Metropolitan Ave., Brooklyn, N. Y., archts.

Mich., Ferndale (br. Detroit)—FACTORY—N. A. Woodworth Co., 1241 Wanda St., design and construction 1 story, 116x187 ft., brick, steel factory, to Austin Co., Curtis Bldg., Detroit. **$47,750.**

Mo., St. Louis—FACTORY—C. Nelson Mfg. Co., 4016 Union Blvd., 1 story, brick, concrete factory addn., to John B. Gutmann Constr. Co., Wainright Bldg. Est. **$40,000** with equip.

Mo., St. Louis — GARAGE — Continental Realty Co., 1401 International Office Bldg., 1 and 2 story, 64x75 ft., brick garage addn., 503 S. Theresa Ave., to W. C. Harting Constr. Co., 722 Chestnut St. Est. **$40,000** with equip. F. R. Bauman, 2700 N. Grand Blvd., archt.

★**Mo., St. Louis**—PLANT—American Can Co., 230 Park Ave., New York, N. Y., and c/o J. M. Hall, plant supt., 41 Branch St., St. Louis, production plant; to Norris Constr. Co., 59 E. Van Buren St., Chicago, Ill. Est. **$1,750,000.** CD 7/10—ENR 7/17.

Mo., St. Louis—SHOP—Busch-Sulzer Bros. Diesel Engine Co., 3300 S. 2 St., 1 story, 117x200 ft., metal clad machine shop addn., concrete fdn., to Smith-Cooke Constr. Co., 4829 Easton Ave. Est. approx. **$75,000.** Ford, Bacon & Davis, 39 Bway, New York, N. Y., archts.

N. J., Hillside—PLANT—G. Loewers & Co., 410 Frelinghuysen Ave., Newark, 1 story, 145x280 ft., brick, steel blending and bottling plant, to D. O. Evans, 1445 N. Broad St. **$60,000.** J. Wind, Jr., 1444 N. Broad St., archt.

N. J., Jersey City—GENERATING STATION—Pub. Serv. Gas & Elec. Co., 80 Park Pl., Newark, 1 story, 45x100 ft., brick, steel generating station addn., 85 ft. high, to United Engrs. & Constructors, Inc., 1401 Arch St., Phila., Pa. **$200,000.** F. P. Fairchild, c/o owner, engr.

N. Y., Jamestown—PLANT—Beck & Tinkham, archts., Bailey Bldg., 1 story, plant addn., to Leo H. Ludwig, 20 W. Main St. Est. **$40,000.** Bids 9/6. Awarded 9/9. CD 9/3—ENR 9/11.

N. Y., Jamestown—SUPER SERVICE STATION—Kendall Refining Co., Bradford, 1 story, concrete, tile master super station, Foote Ave., to Peterson Constr. Co., Bittersweet, RFD, Jamestown. Est. **$40,000** with equip. C. M. Peterson, Bitterson, RFD, Jamestown, archt.

N. Y., Long Island City—FACTORY—Welsh Bros. Realty Corp., 33-35 Purvis St., 1 story factory, 11-12 44 Dr. separate contracts. **$40,000.** J. M. Baker, 24-16 Bridge Plaza S., archt. CD 9/10.

O., Cleveland—FACTORY—National Acme Co., E. 131 St. and Cort Rd., 1 story, brick, steel factory addn., to Cleveland Constr. Co., 3866 Carnegie Ave. Est. **$50,000.** CD 8/13—ENR 8/21.

O., Cleveland—FACTORY, etc.—S. K. Wellman Co., S. K. Wellman, pres., 1381 E. 49 St., 1 and 2 story, 155x176 ft., brick, steel, factory and office bldg. to A. M. Higley Co., 2036 E. 22 St. Est. **$60,000.** Awarded 9/5. CD 8/20—ENR 8/28.

O., Cleveland—FORGE SHOP—Upson-Walton Co., C. H. Mathews, pres. 12500 Elmwood St., 1 story, 30x120 ft., brick, steel, forge shop addn., to Sam W. Emerson Co., 1836 Euclid Ave. Est. **$40,000.** Bonfield & Cumming, 1900 Euclid Ave., engrs.

O., Elyria—PLANT—Bendix Westinghouse Automotive Air Brake Co., Elyria, 100x260 ft. air brake plant addn., to Austin Co., 16112 Euclid Ave., Cleveland. **$100,000.** Awarded 9/9. CD 9/2—ENR 9/4.

O., Euclid—FACTORY, etc.—Gent Machine Co., A. Gent, pres., 5810 Richmond Rd., 1 story, 50x122 ft., and 11x25 ft., brick, steel, factory and boiler room, to Chas. E. Lewis & Son, 1200 Green Rd., Cleveland. Est. **$40,000.** Awarded 9/4. J. L. Rodrick, 1830 Euclid Ave., Cleveland, archt.

Pa., Canonsburg—PLANT—Canonsburg Steel & Iron Co., R. Rupert, genl. mgr., plant addns., imprvs., alterations, etc. separate contracts. Over **$40,000.** CD 8/20—ENR 9/4.

Pa., Erie—BOILER HOUSE—Hammermill Paper Co., E. Lake Rd., substructure, 1 story, bsmnt., 40x50 ft. boiler house exten., to J. C. Hammond, 308 Security Bank Bldg., State St. Bids soon, structural steel and general contract. A. S. Goodrich, E. Lake Rd., Erie, company ch. engr. Ol C. Schoenwerk, 3420 N. Lake Shore Dr., Chicago, Ill., consult. engr.

Pa., Phila.—FORGE—Midvale Co., Wissahickon Ave., forge bldg., to W. Jay Tinney Co., Bartram Ave. Est. over **$40,000.**

Pa., Wilkes-Barre—PLANT—Pressed Steel Co., Wilkes-Barre, 1 story, brick, steel, plant addn., separate contracts. **$40,000.** CD 8/28—ENR 9/4.

Tex., Barker—RECYCLING PLANT—Christian-Carpenter Drilling Co,. c/o Mortgage Petroleum Bldg., Houston, recycling plant, Joyce-Richardson Fields, to H. M. Harrell, c/o Genl. Delivery, Shreveport, La., approx. **$175,000.** CD 9/8—ENR 8/11.

Tex., Lockhart—PLANT—W. C. Blanks, Lockhart, 2 story, hollow tile locker and abattoir plant, force account. **$40,000.** M. Simons, 428 Aztec Bldg., San Antonio, engr.

Wash., Seattle—SALES and SERVICE—Continental Can Co., 601 W. Myrtle St., design and construction 110x127 ft., service and sales bldg., 60x225 ft. machine shop addn., 40x28 ft., office bldg. addn., to Austin Co., 16112 Euclid Ave., Cleveland, O. Est. **$85,000.**

Wis., Wausaw—WAREHOUSE—W. Kurth, 706 1 St., general contract 1 story, 50x120 ft., concrete, steel, brick, warehouse, to C. J. Lang, 606 Seymour, Wausaw. G. A. Krasin, Marshfield, archt.

Man., Winnipeg—FACTORY—National Jewelry & Importing Co. Ltd., Bedford Bldg., altering, repairing factory, to A. A. Akman & Son, 408-9 Avenue Bldg. **$40,000.**

Man., Winnipeg—PLANT—S. & S. Aircraft, Ltd., 215 Watt St., plant addn., to H. E. Gibson & Co., Ltd., 631 Strathcona St. **$90,000.** Moody & Moore, 216 Graham Ave., archt.

Man., Winnipeg—PLANT—Winnipeg Cold Storage Co., Ltd., Jarvis and Salter Sts., plant addn., to Carter-Halls-Aldinger Co., Ltd., Royal Bank Bldg. **$50,000.**

Ont., Leaside (Toronto)—PLANT—Sangamo Electric Co., Ltd., Land Dr., Leaside, plant addn., to Anglin-Norcross, Ontario, Ltd., 57 Bloor St. W., Toronto. **$150,000.** Harkness & Hertzberk, 57 Bloor St., Toronto, engrs.

Ont., Toronto—PLANT—W. D. Beath & Son, Ltd., 394 Symington Ave., 1 and 2 story, brick, steel, plant addn., concrete fdn., to J. R. Page, 18 Toronto St. Est. about **$40,000.**

Ont., Toronto—PLANT—R. W. Sherriff, archt., 3 Macauley Ave., plant, for Canadian Wirebound Boxes, Ltd., 1000 Gerrard St. E., to James Bodie Constr. Co. Ltd., 456 Pape Ave., about **$60,000.** CD 8/25—ENR 8/28.

Ont., Toronto—ROUND HOUSE—Canadian National Rys., R. Wheelwright, ch. engr., Union Sta., round house addn., Mimico Yards, to Fried Constr. Co., Ltd., 70 Victoria St., about **$75,000.**

Ont., Weston — PLANT — Pressure Castings Ltd., 67 S. Main St., brick, structural steel plant exten., to Hibbs Constr. Ltd., 15 Trent St., Toronto. Est. **$40,000.**

Que., Cap de la Madeleine—PLANT—Electric Steel, Ltd., St. Laurent St., 1 story, 40x800 ft., rein.-con., steel, brick plant addn., to Anglin-Norcross, Quebec, Ltd., 892 Sherbrooke St. W., Montreal., about **$150,000.**

Que., Cartierville—PLANT — Noorduyn Aircraft Ltd., 1414 Crescent St., Montreal, superstructure Buildings 3, 4 and 5 at plant, to Richard & E. J. Ryan, Ltd., 1808 William St., Montreal. **$200,000.** CD 8/29—ENR 9/4.

Que., Huntington—PLANT—Leach Textiles, Ltd., Huntington, 1 story, 90x220 ft., plant addn., to D. McNair, Wellington St., about **$40,000.**

Que., Noranda — MACHINE SHOP, etc. — Stadacona-Rouyn Mines Ltd., Rouyn, machine shop, etc., to Hill-Clarke-Francis, Ltd., New Liskeard. **$40,000.**

Que., St. Laurent—PLANT—R. Mitchell Co. Ltd., 750 Belair Ave., Montreal, brick, steel machine shop and foundry, plant addn., concrete fdn., to Anglin-Norcross Ltd., 892 W. Sherbrooke St., Montreal. Est. **$100,000.** CD 8/29—ENR 9/4.

Que., Three Rivers—WAREHOUSE, etc.—Germaine & Bros., 237 St. Antoine St., 3 story, 60x70 ft., rein.-con. warehouse and office bldg., to J. Renaud, 145 Laviolette St. **$40,000.** E. L. Denoucourt, 1425 Notre Dame St., archt.

OFFICIAL PROPOSALS

Official notices of bids wanted on construction and related work, equipment and material for government, state, municipal departments and private enterprises

***RATE:** THE RATE FOR OFFICIAL PROPOSAL ADVERTISING IS 50 CENTS PER LINE (OR FRACTION) PER INSERTION*
***COPY RECEIVED** UP TO 12 NOON TUESDAY FOR ISSUE OUT THURSDAY SUBJECT TO SPACE OPEN FOR LAST-MINUTE ADS*
***SEND COPY** TO OFFICIAL PROPOSAL DIVISION, ENGINEERING NEWS-RECORD, 330 W. 42ND ST., NEW YORK, N. Y.*

Bids: September 24 (513)

Dredging and Re-Dredging

Sealed bids will be received by the Board of Commissioners of the Sixth Ward and Crowley Drainage District at the office of L. A. Williams, Secretary; Crowley, Louisiana at 2.00 P.M. Sept. 24, 1941 covering the dredging and re-dredging of Drains "C" and "H" within and outside the said district.

The contemplated work embraces the excavation of approximately 1,371,000 cu. yds.

A certified check in the amount of $2000.00, drawn without qualification to the order of L. A. Williams, Secretary, must accompany each bid.

The Board reserves the right to reject any or all bids.

J. J. CASSIDY,
President.

Bids: September 26 (545)

School

BOARD OF EDUCATION,
CENTRAL SCHOOL DISTRICT NO. 1
OF THE TOWNS OF HIGHLAND,
LUMBERLAND, AND TUSTEN,
SULLIVAN COUNTY, AND
DEER PARK, ORANGE
COUNTY, NEW YORK

Separate sealed bids for General Construction Work, Heating and Ventilating Work, Plumbing Work, and Electrical Work for a new school building to be erected in Eldred, New York, will be received by the Board of Education, Central School District No. 1 of the Towns of Highland, Lumberland, and Tusten, Sullivan County, and Deer Park, Orange County, New York at its office in Eldred, New York, until 1:30 P.M. Eastern Standard Time, September 26, 1941, and then at said place, publicly opened and read aloud.

The information for Bidders, Form of Bid, Form of Contract, Plans, Specifications, and Forms of Bid Bond and Performance Bond may be examined at the office of the Board of Education, Eldred, N. Y., and at the office of H. O. Fullerton, Architect, 152 Washington Ave., Albany, N. Y., and copies thereof obtained at said Architect's office upon payment of $10.00 for each set. Any bidder upon returning such set promptly and in good condition will be refunded his payment, and non-bidders upon returning such set will be refunded $5.00.

The Board of Education reserves the right to waive any informalities in or to reject any or all bids.

Each bidder must deposit with his bid security in an amount of not less than five percentum (5%) of the Base Bid in the form and subject to the conditions provided in the information for Bidders.

No bidder may withdraw his bid within forty-five (45) days after the actual date of the opening thereof.

CHARLES MACINTYRE
President, Board of Education
September 11 and 18, 1941

Bids: October 3 (546)

Roadside Improvement

STATE OF NEW JERSEY
STATE HIGHWAY DEPARTMENT
TRENTON
READVERTISEMENT

NOTICE IS HEREBY GIVEN that sealed bids will be received by the State Highway Commissioner for:

RT. 4 RELOCATION, SEC. 41A, ROADSIDE IMPROVEMENT

For the roadside improvement of Route 4 Relocation, Section 41A, Gordon's Corner to Browntown, Monmouth & Middlesex Counties, length 5.148 miles. Federal Aid Project SN-181 B (2)

Estimated:

602	Deciduous Trees
540	Small and Flowering Trees
14	Coniferous Trees
2,502	Shrubs
21,024	Vines
2,500	cu. yds. Topsoil for Planting
68	tons Manure for Planting

Bids for the above will be received at the office of the State Highway Department, State House Annex, Trenton, N. J., on Friday, October 3, 1941, at twelve o'clock Noon, EASTERN STANDARD TIME, and will be opened and read immediately thereafter.

The receipt and opening of bids is subject to the proper qualification of the bidder in accordance with the provisions of the prequalification law and the regulations adopted by the State Highway Commissioner. Bidders must submit a revised financial statement and statement of plant and equipment with their bid.

NOTE: The proposed work is a "Regular Federal Aid Project" under the provisions of Section 1 of the Federal Act approved June 8, 1938, Public No. 584-75th Congress, and is to be performed in accordance with the Special Provisions and Requirements of the Federal Works Agency, Public Roads Administration, as outlined in the specifications, which provisions require that labor be employed from lists furnished by the State Employment Service, 12 Broad Street, Red Bank, New Jersey, or Maple Ave. & Fayette Street, Perth Amboy, New Jersey. The attention of bidders is directed to the Special Provisions covering subletting or assigning the contract and to the use of Domestic Materials. The minimum wage paid to all unskilled labor employed on this contract shall be 50c per hour. The minimum wage paid to all intermediate grade of labor employed on this contract shall be 65c per hour. The minimum wage paid to all skilled labor employed on this contract shall be $1.20 per hour.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, N. J., and may be inspected by prospective bidders during office hours. Plans will be furnished on a deposit of Ten Dollars ($10.00) for each set of plans upon applieaton to A. Lee Grover, Chief Clerk, State Highway Department, Room 102, State House Annex, Trenton, N. J. Bids must be made on the standard proposal forms in the manner designated in the standard State Highway specifications and must be enclosed in sealed special addressed envelopes bearing the name and address of the bidder and work bid upon on the outside, and must be accompanied by a certified check drawn to the order of the Treasurer of the State of New Jersey for not less than ten percent (10%) of the amount of the bid, provided that the said certified check shall not be less than $500.00 nor more than $20,000.00 and must be delivered at the above place on or before the hour named. Copies of the standard proposal forms and special addressed envelopes will be furnished on application. Bids not enclosed in special addressed envelopes will be considered informal and will not be opened. The right is reserved to reject any or all bids.

Signed: E. Donald Sterner
State Highway Commissioner

Bids: September 30 (549)

Bulkhead and Fill

Sealed bids or proposals for the construction of a timber bulkhead and shoreward fill on the east shore of Huntington Harbor, ¼ mile north of the Mill Dam Road, will be received by the Town Board of the Town of Huntington, N. Y., at their Board Room in the Town Hall at Huntington until 2:30 O.C. on the 30th day of September, 1941, when they will be publicly opened and read.

Each bid must be accompanied by a certified check in the amount of 5 per cent of the amount of the bid made payable to Arthur J. Kreutzer, Supervisor.

The award will be made within ten days of the opening of the bids.

The time allowed for the performance of the work shall be 100 calendar days from the date of the execution of the contract. If Government preferentials are encountered the time will be extended to the amount of any delay proved to be caused thereby.

A bond guaranteeing specific performance of the contract will be required in an amount equal to 100 per cent of the contract price.

The work consists of the construction of a timber bulkhead 511 feet in length and a shoreward fill of 6000 cubic yards.

The gross approximate quantities of the materials required are as follows: Fender anchor and brace piles, 135; Wales 11900 square feet board measure; Sheathing 86000 square feet board measure; Tie Rods 3100 lineal feet; and Fill, 6000 cubic yards.

The Town Board reserves the right to reject any or all bids or to accept any bid which in their opinion is to the advantage of the Township.

Plans and the contract and specification may be seen and forms of proposal obtained at the office of the Engineer, Frank Asbury, at 355 New York Avenue, Huntington, N. Y., at any time or copies of the plan, contract and specification may be obtained from him for $5:00.

Bids: October 8 (553)

Pumps and Motors

CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC WORKS
BUREAU OF WATER

Sealed proposals will be received at the office of the Department of Public Works, Room 903, City Hall Annex, Philadelphia, Pennsylvania, until 12 o'clock Noon, Eastern Standard Time, Wednesday, October 8, 1941, and opened at that time in Room 1025, City Hall Annex, for furnishing, delivering, erecting and testing Six (6) HORIZONTAL CENTRIFUGAL PUMP AND ELECTRIC MOTOR UNITS for Lardners Point Pumping Station as follows:

Four (4) Units each consisting of one pump rated 40 MGD at 245 feet, one pump rated 30 MGD at 85 feet and a common motor

Two (2) Units rated 25 MGD at 245 feet.

Each proposal shall be accompanied by either a certified check or certificate of deposit by a responsible bank or trust company or bonds of the City of Philadelphia for the amount specified in the City Ordnance, approved October 29, 1940, copy of which forms a part of the contract documents.

Plans, Specifications, Forms of Proposal and Contract and Prequalification Questionnaire may be obtained at project office, Room 241, Chestnut Street Pier, upon making deposit of $10.00 by check, made payable to the City Treasurer of the City of Philadelphia.

NOTICE: No bid for this work will be received unless the questionnaire with all questions fully answered is filed with the Director of the Department at least one (1) week previous to the date of opening bids.

JOHN H. NEESON
Director.

U. S. Government

SEALED BIDS will be received by the Civil Aeronautics Administration, 9th Floor, City Hall, Kansas City, Mo., until 11 AM. CST, Sept. 25, 1941, for the *enlargement and improvement of the Kirksville, Mo., Airway Landing Field.* Work includes approximately 20,000 cubic yards grading, 10,000 tons paving aggregate, 65,000 gallons paving asphalt, 9,500 linear feet drain lines. A five dollars ($5.00) deposit in the form of a certified check or money order payable to G. F. Allen, Chief Disbursing Officer, must be submitted to the above address for each set of plans and specifications. (558)

For Additional Official Proposal Advertisements—See Page 28

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